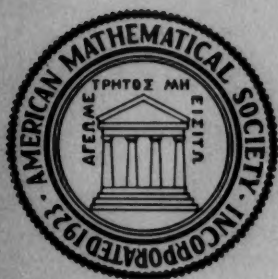


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Annual Index – 1981

Subject Index 00 – 58

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- Schneider, Manfred Mathematik und wissenschaftlich-technischer Fortschritt. (81j:00006)
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- Starostin, B. A. ★Параметры развития науки. (Russian) [Parameters of the development of science] 81m:00020
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 (Ilgutis, H.-J.) See Wussing, Hans, 81g:01001
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Birthday:

Pedersen, Olaf ★Special issue dedicated to Olaf Pedersen on his sixtieth birthday. 81i:01003

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- J. Symbolic Logic Index of contributed papers, Volumes 27-45, 1962-1980. (81j:00012)

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- Lambert, William M., Jr. A type of soundness for a natural deduction system. (Spanish. English summary) (81j:03024)

- (Savel'ev, L. Ja.) See *Olympiads. Algebra. Combinatorial analysis*, (81j:00004)
 Wam, Mitchell ★Induction, recursion, and programming. (81i:68001)
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- Džidžan, R. Z. ★Расширенная силлогистика. (Russian) [Extended syllogistics] (81c:03003)
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- Bočarov, V. A. (with Vošvillo, E. K.; Dragalin, A. G.; Smirnov, V. A.) Some problems of the development of logic. (Russian) 81c:03005
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- Angeles, Ignacio Aristotelian modal syllogistic. (Spanish) (81c:03012)
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- Mahne, Dietrich ★Leibnizens Synthese von Universalmathematik und Individualmetaphysik. (German) [Leibniz' synthesis of universal mathematics and individual metaphysics] **(81d:01028)**
- McCarthy, John First order theories of individual concepts and propositions. **(81m:03024)**
- (McGuinness, Brian) See Frege, Gottlob. **(81d:03001)**
- Moulines, Carlos-Ulises (with Sneed, Joseph D.) Suppes' philosophy of physics. (See **80m:01040**)
- Nute, Donald E. Conversational scorekeeping and conditionals. **(81g:03019)**
- O'Brian, Walter H. Russell on Leibniz. (German summary) **(81h:01010)**
- Philipp, P. Zum praktischen Schließen. **(81b:03031)**
- Post, John F. Infinite regresses of justification and of explanation. **(81f:03029)**
- (Sadovskii, V. N.) See Systems research. **(81j:00028)**
- Scheibe, Erhard Kants Philosophie der Mathematik. **(81f:00006)**
- Schotch, P. K. (with Jennings, R. E.) Multiple-valued consistency. **(81a:03027)**
- Shiner, Roger A. Aisthesis, nous and phronesis in the practical syllogism. **(81h:03004)**
- Simanov, A. L. A physical picture of the world and the concept of "state" as its element. (Russian) **(81g:01005)**
- Slmons, John Carson A realist semantics for Cocchiarella's T*. **(81b:03010)**
- Slater, B. H. Aristotle's propositional logic. **(81b:03032)**
- Šljahin, G. G. Philosophical analysis of conceptions of the constructive nature of mathematical thought. (Russian) **(81e:00012)**
- Sloman, Aaron ★The computer revolution in philosophy. **(81i:00007)**
- Smirnov, V. A. See Bočarov, V. A.; et al., **(81i:03005)**
- Sneed, Joseph D. See Moulines, Carlos-Ulises. (See **80m:01040**)
- Stegmüller, Wolfgang ★The structuralist view of theories. **(81i:00008)**
- (Suppes, Patrick) See Luce, R. Duncan. (See **80m:01040**) and Moulines, Carlos-Ulises et al., (See **80m:01040**)
- (Thiel, Christian) See Frege, Gottlob. **(81d:03001)**
- Ursul, A. D. Successes and limits of mathematization. (Russian. English summary) **(81c:00009)**
- (Varela Garcia, F. J.) See Andrew, Alex M., **(81c:00005)**
- (Veraart, Albert) See Frege, Gottlob. **(81d:03001)**
- Vesley, Richard Intuitionistic analysis: the search for axiomatization and understanding. **(81m:03072)**

- Vollstille, E. K. See Bocharov, V. A.; et al. (81i:03005)
 Wald, Jan David See Baker, Lynne Rudder. (81g:03013)
 Walton, Douglas N. Philosophical basis of relatedness logic. (81g:03023)
 Relatedness in intensional action chains. (81g:03024)
 Weingartner, Paul On the characterization of entities by means of individuals and properties. (81d:03023)
 Welsh, Paul J., Jr. Primitivity in mereology. I. (81e:03027a)
 Primitivity in mereology. II. (81e:03027b)
 Wierenga, Edward Fodor on Davidson on action sentences. (81g:03032)
 Wittgenstein, Ludwig ★ Wittgenstein's lectures. Cambridge, 1932-1935. (81a:00019b)
 ★ Wittgenstein's lectures. Cambridge, 1930-1932. (81a:00019a)
 See also Barker, Peter. (81m:01027)
 Zagoruilko, N. G. Methodological premises and problems of the automatic detection of regularities. (Russian) (81i:00010)
 Zahar, Elie G. The mathematical origins of general relativity and of unified field theories. (81m:03004)
 Biography:
 Brouwer, L. E. J. See van Duijn, Dirk. (81j:03004)
 Correspondence:
 Frege, Gottlob See Frege, Gottlob. (81d:03001)
 Systems research ★ Системные исследования. (Russian) [Systems research] (81j:00028)

03Bxx General logic

secondary classifications:

- Rautenberg, Wolfgang ★ Klassische und nichtklassische Aussagenlogik. (German)
 [Classical and nonclassical propositional logic] (81i:03002)

03B05 Classical propositional logic

- Aprile, Giuseppe Propositional calculus and inferential calculus. (Italian. English summary) 81c:03002
 Archie, Lee C. A simple defense of material implication. 81i:03011
 Ben-Ari, Mordechai Comments on: "Tautology testing with a generalized matrix reduction method" [Theoret. Comput. Sci. 8 (1979), no. 1, 31-44; MR 80i:03023] by W. Bibel. 81f:03012
 (Bibel, Wolfgang) See Ben-Ari, Mordechai. 81f:03012
 Dumitriu, Anton Natural reconstruction of mathematical logic. 81h:03022
 Didžian, R. Z. ★ Расширенная силлогистика. (Russian) [Extended syllogistics] 81e:03003
 van Fraassen, Bas C. See Leblanc, Hugues. 81g:03005
 Gibbins, Peter Material implication: a variant of the Dale defence. 81j:03020
 Kirsch, Arnold Bemerkungen zum Unterscheiden von "wenn-so" und "also". 81j:03021
 Leblanc, Hugues (with van Fraassen, Bas C.) On Carnap and Popper probability functions. 81g:03005
 Nurlibaev, A. N. A Boolean function. (Russian) 81f:03013
 On the construction of a reduced disjunctive normal form by the Nelson method. (Russian) 81f:03014
 Rose, Alan Sur certaines tautologies sans constantes qui possèdent des variables de sortes. 81e:03004
 Sharvy, Richard Transitivity and conditionals. 81f:03015a
 Errata: "Transitivity and conditionals". 81f:03015b
 Silver, Charles A simple strong completeness proof for sentential logic. 81d:03010
 Stelmzer, W. Funktorenvariable, Funktionenvariable und nichtklassische Logik. 81i:03012

secondary classifications:

- Chakrapani, N. See Rangaswamy, S. V.; et al. (81i:68131)
 Cippo, Claudio Perelli (with Venini, Eugenio) A neuro-model of the propositional calculus. (Italian summary) (81h:68032)
 Dancin, E. Ja. Parameters defining the time of tautology recognition by the splitting method. (Russian) (81i:68130)
 Ellerman, David P. (with Rota, Gian-Carlo) A measure-theoretic approach to logical quantification. (81c:03027)
 Fang, J. The illogical in the logical. (81a:03004)
 Fieschi, M. (with Joubert, M.) Application d'une méthode logique à l'aide à la décision en médecine. La méthode de Davis et Putnam en logique propositionnelle. (81m:92009)
 Joubert, M. See Fieschi, M. (81m:92009)
 Mamatov, Ju. A. A method for the synthesis of planar disjunctive normal forms for logic functions. (Russian) (81k:94053)
 Rangaswamy, S. V. (with Chakrapani, N.; Tikekar, V. G.) A computational algorithm for the verification of tautologies in propositional calculus. (81i:68131)
 Rota, Gian-Carlo See Ellerman, David P. (81c:03027)
 Tikekar, V. G. See Rangaswamy, S. V.; et al. (81i:68131)
 Venini, Eugenio See Cippo, Claudio Perelli. (81h:68032)

03B10 Pure first-order logic (including many-sorted logic)

- Bencivenga, Ermanno A weak free logic with the existence sign. 81i:03013
 Dahn, Bernd I. First order logics for metric structures. 81g:03006
 Elmor, E. I. Automatic formation of concepts described by closed formulas of the restricted predicate calculus. (Russian) 81j:03022
 Gladkii, Ju. Singular terms, existence and truth: some remarks on a first order logic of existence. 81g:03007
 Gumb, Raymond D. Metaphor theory. 81e:03005
 Hanazawa, Masazumi An extension of the notion of relativization to Hilbert's ϵ -symbol. 81j:03023

- Hennessey, Matthew C. B. A proof system for the first-order relational calculus. 81h:03023
 Krla, V. G. A semantic characterization of terms free for some variable in a formula. 81h:03024
 Lambert, William M., Jr. A type of soundness for a natural deduction system. (Spanish. English summary) 81j:03024
 Leblanc, Hugues Generalization in first-order logic. 81d:03011
 Leivant, Daniel Innocuous substitutions. 81g:03008
 McKee, Terry A. Generalized equivalence and the foundations of quasigroups. 81b:03007
 Generalized equivalence and the phraseology of configuration theorems. 81b:03008
 Porte, Jean Simplifying the axioms of the predicate calculus. 81f:03016
 Pouzet, Maurice Chaînes de théories universelles. 81j:03025
 Schneider, Hubert H. Substitutions for predicate variables and functional variables. 81b:03009
 Smirnov, V. A. Theory of quantification and δ -calculi. 81c:03010
 Szczerba, Lesław W. Interpretability and axiomatizability. (Russian summary) 81f:03017

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- Bellacchio, A. (with Freguglia, Paolo) Semantic characterization of object-predicate tables subject to a clustering procedure. (Italian. English summary) (81d:68042)
 Dijkstra, Edgar W. Finding the correctness proof of a concurrent program. (81d:68020)
 van Douwen, Eric K. (with van Mill, Jan) $\beta\omega$ - ω is not first order homogeneous. (81m:54039)
 Ellerman, David P. (with Rota, Gian-Carlo) A measure-theoretic approach to logical quantification. (81c:03027)
 Freguglia, Paolo See Bellacchio, A. (81d:68042)
 Funahashi, Sakae See Oshiba, Takeshi; et al. (81j:03093)
 Grail, J. Eine erweiterbare Prädikaten-Funktionen-Sprache und ihre Anwendung für Programmspezifikation und Programmiersprachendefinition. (81d:68021)
 Howson, Collin (with Oddie, Graham) Miller's so-called paradox of information. (81d:62003)
 Hughes, G. E. Equivalence relations and Σ . (81g:03017)
 Hugly, Philip Reflections on an extensionality theorem. (81a:03006)
 Kearns, John T. A little more like English. (81d:03032)
 van Mill, Jan See van Douwen, Eric K. (81m:54039)
 Nagata, Shiro See Oshiba, Takeshi; et al. (81j:03093)
 Nilsson, Nils J. A production system for automatic deduction. (81g:68125)
 Oddie, Graham See Howson, Collin. (81d:62003)
 Oshiba, Takeshi (with Nagata, Shiro; Funahashi, Sakae) A method for obtaining proof figures of valid formulas in the first order predicate calculus. (81j:03093)
 Parsons, Terence Referring to nonexistent objects. (81a:03007)
 Rota, Gian-Carlo See Ellerman, David P. (81c:03027)
 Williams, C. J. F. Misinterpretations of quantifiers. (81k:03012)

03B15 Higher-order logic and type-theory

- Anderson, C. Anthony Some new axioms for the logic of sense and denotation: alternative (0). 81m:03012
 Boudreaux, Jack C. Frames versus minimally restricted structures. 81h:03025
 Cocchiarella, Nino Nominalism and conceptualism as predicative second-order theories of predication. 81j:03026
 Crabbé, Marcel Ramification et prédicativité. 81e:03006
 Herrmann, Eberhard (with Wolter, Helmut) Untersuchungen zu schwachen Logiken der zweiten Stufe. 81k:03013
 Simms, John Carson A realist semantics for Cocchiarella's T*. 81h:03010
 Stark, William Richard Type hierarchies and type-level reduction. I. 81g:03009
 Wolter, Helmut See Herrmann, Eberhard. 81k:03013

secondary classifications:

- Ajtai, M. Isomorphism and higher order equivalence. (81j:03052)
 Bunder, M. W. The consistency of a higher order predicate calculus and set theory based on combinatory logic. (81h:03106)
 Daniels, Charles B. (with Freeman, James B.) A logic of generalized quantification. (81m:03022)
 Freeman, James B. See Daniels, Charles B. (81m:03022)
 Garson, James W. The unaxiomatizability of a quantified intensional logic. (81d:03018)
 Gurevich, Yuri Monadic theory of order and topology. II. (81f:03049)
 Schwabhauser, Wolfram Nonfinitizability of a weak second-order theory. (81h:03079)

03B20 Fragments of classical logic

- Dale, A. J. A natural deduction system for "if then". 81h:03026
 Dardjizaja, G. K. The complexity of countermodels for the intuitionistic propositional calculus. (Russian. Georgian and English summaries) 81d:03012
 Englebretsen, George Noncategorical syllogisms in the *Analytics*. 81k:03014
 Friedman, William H. Calculus. 81e:03007
 de Jough, Dick H. J. A class of intuitionistic connectives. 81m:03013
 Kirk, Robert E. Some classes of Kripke frames characteristic for the intuitionistic logic. 81b:03011
 A characterization of the classes of finite tree frames which are adequate for the intuitionistic logic. 81m:03014
 Kodera, Heiji Remark on classical logic and intuitionistic logic. 81m:03015
 Matsumoto, Kazuo See Shirai, Koki. 81f:03018
 Novak, Joseph A. Some recent work on the assertoric syllogistic. 81h:03027
 Semenenko, M. I. Properties of some subsystems of classical and intuitionistic propositional calculi. (See 80m:00006)

- Shirai, Kokio (with Matsumoto, Kazuo) A note on elimination of function symbols in the intuitionistic predicate calculus. **81f:03018**
 Skvorcov, D. P. Realizability and finite validity of propositional formulas with constraints on the occurrences of the implication sign. (Russian) **81j:03027**
 Slater, B. H. A fragment of new propositional logic. **81c:03011**

secondary classifications:

- Corcoran, John (with Wood, Susan) Boole's criteria for validity and invalidity. **(81j:03003)**
 Freguglia, Paolo An algebraic-categorical interpretation of syllogism. (Italian) **(81d:03066)**
 Goldblatt, Robert L. ★Topoi. **(81a:03063)**
 Jacobs, William The existential presuppositions of Aristotle's logic. **(81k:03001)**
 Scott, Dana Identity and existence in intuitionistic logic. **(81a:03060)**
 Skvorcov, D. P. The connection of finite validity of certain propositional formulas with derivability in the Kreisel-Putnam system. (Russian. English summary) **(81i:03008)**
 Tennant, Neil Language games and intuitionism. **(81b:03006)**
 Wood, Susan See Corcoran, John. **(81j:03003)**

03B25 Decidability of theories and sets of sentences

- Abramsky, Motti The classical decision problem and partial functions. **81i:03014**
 Dreben, Burton (with Goldfarb, Warren D.) ★The decision problem. **81i:03015**
 Ferrante, Jeanne (with Rackoff, Charles W.) ★The computational complexity of logical theories. **81d:03013**
 Goldfarb, Warren D. See Dreben, Burton. **81i:03015**
 Herre, Heinrich (with Wolter, Helmut) Entscheidbarkeit der Theorie der linearen Ordnung in Logiken mit Mächtigkeitquantoren bzw. mit Chang-Quantor. **81a:03010**
 Hmelevskii, Ju. I. See Taimanov, A. D. **81b:03012**
 Kosen, Dexter Complexity of Boolean algebras. **81c:03008**
 Muzalewsky, Michal Restricted decision problems in some classes of algebraic systems. **81g:03010**
 Norgela, S. A. On approximation of some classes in the classical predicate calculus by decidable classes. I. (Russian. Lithuanian and English summaries) **81i:03016**
 Rackoff, Charles W. See Ferrante, Jeanne. **81d:03013**
 Sankappanavar, H. P. Decision problems: history and methods. **81a:03011**
 Seese, Detlef G. Some graph-theoretical operations and decidability. **81j:03028**
 Semenov, A. L. Some extensions of the arithmetic of natural number addition. (Russian) **81c:03009**
 Taimanov, A. D. (with Hmelevskii, Ju. I.) Decidability of the universal theory of a free semigroup. (Russian) **81b:03012**
 Tuschik, Hans-Peter On the decidability of the theory of linear orderings with generalized quantifiers. **81m:03016**
 Wöhl, Kai Zur Komplexität der Presburger Arithmetik und des Äquivalenzproblems einfacher Programme. **81k:03015**
 Wolter, Helmut See Herre, Heinrich. **81a:03010**
 Žešerov, A. P. Decidability of the unification problem for second-order languages with unary functional symbols. **81h:03028**

secondary classifications:

- Berman, Piotr Complexity of the theory of atomless Boolean algebras. **(81k:03033)**
 Berstel, Jean Sur les mots sans carré définis par un morphisme. (English summary) **(81j:68104)**
 Bruns, Anna R. (with Meyer, Albert R.) On time-space classes and their relation to the theory of real addition. **(81i:68056)**
 Freese, Ralph (with Nation, J. B.) Finitely presented lattices. **(81a:06006)**
 Gat, Georg On schemata and L systems for parallel algorithms. (French summary) **(81c:68028)**
 Gurari, Eltan M. (with Ibarra, Oscar H.) An NP-complete number-theoretic problem. **(81c:68034)**
 (with Ibarra, Oscar H.) Simple counter machines and number-theoretic problems. **(81i:68086)**
 Gurevich, Yuri Modest theory of short chains. I. **(81a:03038a)**
 (with Shelah, Saharon) Modest theory of short chains. II. **(81a:03038b)**
 Ibarra, Oscar H. See Gurari, Eltan M. **(81c:68034)** and Gurari, Eltan M. **(81i:68086)**
 Jarden, Moshe An analogue of Čebotarev density theorem for fields of finite corank. **(81d:12010)**
 Koppel, Moshe Some decidable Diophantine problems: positive solution to a problem of Davis, Matijasevič and Robinson. **(81a:10069)**
 Kron, Aleksander Decision procedures for two positive relevance logics. **(81b:03020)**
 Lerman, Mammel (with Soare, Robert I.) A decidable fragment of the elementary theory of the lattice of recursively enumerable sets. **(81c:03034)**
 Meyer, Albert R. See Bruns, Anna R. **(81i:68056)**
 Nation, J. B. See Freese, Ralph. **(81a:06006)**
 Rose, Bruce I. On the model theory of finite-dimensional algebras. **(81a:03033)**
 Ruohonen, Keijo The inclusion problem for DOL languages. (German and Russian summaries) **(81g:68112)**
 Shelah, Saharon See Gurevich, Yuri. **(81a:03038b)**
 Soare, Robert I. See Lerman, Mammel. **(81c:03034)**
 Stark, William Richard Automatic model construction. **(81m:68078)**
 Szczerba, Lesław W. Interpretations with parameters. **(81k:03062)**
 Thomas, Wolfgang On the bounded monadic theory of well-ordered structures. **(81h:03080)**
 Zubenko, V. V. Standard program algebras. (Russian. English summary) **(81d:68017)**

03B30 Foundations and axiomatics of classical theories

- Guggenheimer, Heinrich The axioms of betweenness in Euclid. **81h:03029**
 Karpovič, V. N. The concept and rules of definition in theories with standard

formalization. (Russian) **81f:03019**

- Prestel, Alexander (with Szczerba, Lesław W.) Nonaxiomatizability of real general affine geometry. **81a:03013**
 Szczerba, Lesław W. (with Tarski, A.) Metamathematical discussion of some affine geometries. **81a:03012**
 See also Prestel, Alexander. **81a:03013**
 Tarski, A. See Szczerba, Lesław W. **81a:03012**

secondary classifications:

- van Benthem, J. F. A. K. Ramsey eliminability. **(81c:03022)**
 Goossens, William K. Alternative axiomatizations of elementary probability theory. **(81h:60002)**
 Sapir, M. V. Finite and independent axiomatizability of some quasivarieties of semigroups. (Russian) **(81h:20076)**

03B35 Mechanics of proofs and logical operations

- de Bruijn, N. G. A survey of the project AUTOMATH. **81m:03017**
 Norgela, S. A. Herbrand deduction-search strategies in predicate calculus. II. (Russian. Lithuanian and English summaries) **81b:03013**
 Popev, S. V. See Zahar'jašev, M. V. **81b:03014**
 Zahar'jašev, M. V. (with Popev, S. V.) A deduction search procedure based on the syntactic tree method. (Russian. English summary) **81b:03014**

secondary classifications:

- Andrews, Peter B. Transforming matings into natural deduction proofs. (See **81i:68006**)
 Aubin, Raymond Mechanizing structural induction. I. Formal system. **(81h:68091a)**
 Mechanizing structural induction. II. Strategies. **(81h:68091b)**
 (Bibel, Wolfgang) See Conference: Automated Deduction. **(81i:68006)**
 Boyer, Robert S. (with Moore, J. Strother) ★A computational logic. **(81d:68127)**
 Brown, Frank Malloy (with Tärnlund, Sten Åke) Inductive reasoning on recursive equations. **(81c:68029)**
 Chakrapani, N. See Rangaswamy, S. V.; et al. **(81i:68131)**
 van Dalen, Diederik Ton ★The language theory of AUTOMATH. **(81h:68092)**
 Doshita, Shuji See Yamasaki, Susumu; et al. **(81j:03065)**
 Fiby, R. (with Sokol, J.; Sudolský, Marián) Efficient resolution theorem proving in the propositional logic. **(81j:68112)**
 Ishibashi, Toshihiko See Yamasaki, Susumu; et al. **(81j:03065)**
 Jeanraud, Hans-Josef Deciding unique termination of permutative rewriting systems: choose your term algebra carefully. (See **81i:68006**)
 Kowalski, Robert ★Logic for problem solving. **(81j:68003)**
 See also Conference: Automated Deduction. **(81i:68006)**
 Kramosil, Ivan A note on computational complexity of a statistical deducibility testing procedure. **(81c:68113)**
 Statistical approach to proof theory. **(81d:68128)** /
 Kur'ev, Ju. N. Normal form of mutual-absorption tactics. **(81m:68077)**
 Milner, Robin LCF: a way of doing proofs with a machine. **(81g:68124)**
 Moore, J. Strother See Boyer, Robert S. **(81d:68127)**
 Nilsson, Nils J. ★Principles of artificial intelligence. **(81j:68106)**
 Noll, Helga A note on resolution: how to get rid of factoring without losing completeness. **(81k:68070)**
 Pastre, D. Automatic theorem proving in set theory. **(81c:68114)**
 Plaisted, David A. Abstraction mappings in mechanical theorem proving. **(81k:68071)**
 Pratt, Vaughan R. Axioms or algorithms. **(81c:68023)**
 Rangaswamy, S. V. (with Chakrapani, N.; Tikekar, V. G.) A computational algorithm for the verification of tautologies in propositional calculus. **(81i:68131)**
 Sokol, J. See Fiby, R.; et al. **(81j:68112)**
 Sudolský, Marián See Fiby, R.; et al. **(81j:68112)**
 Tärnlund, Sten Åke See Brown, Frank Malloy. **(81c:68029)**
 Tikekar, V. G. See Rangaswamy, S. V.; et al. **(81i:68131)**
 Townley, Judy A. A pragmatic approach to resolution-based theorem proving. **(81d:68129)**
 Weyhrauch, Richard W. Prolegomena to a theory of mechanized formal reasoning. **(81j:68114)**
 Yamasaki, Susumu (with Ishibashi, Toshihiko; Doshita, Shuji) Unit resolution for a subclass of the Ackermann class. **(81j:03065)**
 Automated deduction ★5th Conference on Automated Deduction. **(81i:68006)**
 Conference:
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03B40 Combinatory logic and λ -calculus

- Bergstra, Jan (with Klop, Jan Willem) Invertible terms in the lambda calculus. **81k:03016**
 Böhm, Corrado (with Micali, Silvio) Minimal forms in λ -calculus computations. **81h:03030**
 Bunder, M. W. Significance and illative combinatory logics. **81g:03011**
 Coppo, Mario (with Dezani-Ciancaglini, M.) A new type assignment for λ -terms. **81d:03014**
 Dezani-Ciancaglini, M. See Coppo, Mario. **81d:03014**
 Gandy, R. O. An early proof of normalization by A. M. Turing. **81m:03018**
 Hindley, Roger (with Longo, G.) Lambda-calculus models and extensionality. **81m:03019**
 Klop, Jan Willem See Bergstra, Jan. **81k:03016**
 Kužičev, A. S. The Curry paradox in combinatorially complete systems. (Russian. English summary) **81a:03014**
 Classes of objects having normal forms in a system of λ -conversion with logical operators. (Russian) **81h:03031**

Lambek, Joachim From λ -calculus to Cartesian closed categories. 81m:03020

Longo, Giuseppe (with Venturini Zilli, Marisa) A $\lambda\delta$ -calculus with an algorithmic δ . 81h:03032

See Hindley, Roger, 81m:03019

Micali, Silvio See Böhm, Corrado, 81h:03030

van Rensselaer, Michael Mengentheoretische Modelle des λK -Kalküls. 81g:03012

Staples, John A graph-like lambda calculus for which leftmost-outermost reduction is optimal. 81i:03017

A lambda calculus with naive substitution. 81h:03015

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Wadsworth, Christopher P. Approximate reduction and lambda calculus models. 81f:03020

secondary classifications:

Astesiano, Egidio (with Costa, Gerardo) Languages with reducing reflexive types. (81j:68082)

Berry, Gérard (with Lévy, Jean-Jacques) A survey of some syntactic results in the λ -calculus. (81f:68013)

de Bruijn, N. G. A survey of the project AUTOMATH. (81m:03017)

Bunder, M. W. Paraconsistent combinatory logic. (81a:03025)

The consistency of a higher order predicate calculus and set theory based on combinatory logic. (81h:03106)

Coppo, Mario (with Dezani-Ciancaglini, M.; Salle, P.) Functional characterization of some semantic equalities inside λ -calculus. (81d:68043)

Costa, Gerardo See Astesiano, Egidio, (81j:68082)

Curry, H. B. See Essays: Combinatory logic, lambda calculus and formalism, (81j:03005)

Dezani-Ciancaglini, M. (with Ronchi Della Rocca, S.; Saitta, Lorenza) Complexity of λ -term reductions. (French summary) (81j:68016)

See also Coppo, Mario; et al., (81d:68043)

Hajnal, A. (with Némethi, István) Applications of universal algebra, model theory, and categories in computer science. (81d:68012)

Halstead, Robert H., Jr. See Ward, Stephen A., (81h:68013)

(Hindley, Roger) See Essays: Combinatory logic, lambda calculus and formalism, (81j:03005)

Kuznetsov, A. A. On the permissibility of a cut in combinatorially complete systems with equality. (Russian. English summary) (81k:03059)

Kuznetsov, A. S. Formal arithmetic in a system of λ -conversion with logical operators. (Russian) (81a:03058)

Lawson, Jimmie D. Algebraic conditions leading to continuous lattices. (81g:06002)

Lévy, Jean-Jacques See Berry, Gérard, (81f:68013)

Némethi, István See Hajnal, A., (81d:68012)

Pettorossi, Alberto On the definition of hierarchies of infinite sequential computations. (81j:68021)

A hierarchy of infinite computations in type free subtree replacement systems. (81h:68008)

Ronchi Della Rocca, S. See Dezani-Ciancaglini, M.; et al., (81j:68016)

Saitta, Lorenza See Dezani-Ciancaglini, M.; et al., (81j:68016)

Salle, P. See Coppo, Mario; et al., (81d:68043)

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- Hosoi, Tsutomu The delta operation on the intermediate logics and the modal logics. 81f:03034
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- Maksimova, L. L. A classification of modal logics. (Russian) 81h:03032
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- Medvedev, Ju. T. Transformations of information and calculi that describe them: types of information and their possible transformations. (Russian) 81j:03041a
- Shundo, Shuzi A procedure for classifying the intermediate propositional logics and its application to the finite slices. 81j:03036
- Skvorcov, D. P. Some propositional logics connected with Ju. T. Medvedev's concept of types of information. (Russian) 81j:03041b
- Zachorowski, Stanisław Remarks on interpolation property for intermediate logics. 81h:03027

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- Nute, Donald E. See Fetzer, James H., (81g:03015)
- Prucnal, Tadeusz On two problems of Harvey Friedman. (81h:03040)

03B60 Other nonclassical logic

- de Almeida Moura, J. E. See Alves, Elias H., 81h:03054
- Alves, Elias H. (with de Almeida Moura, J. E.) On some higher-order paraconsistent predicate calculi. 81h:03054
- (Aristotle) See Slater, B. H., 81b:03032
- Arruda, Ayda I. A survey of paraconsistent logic. 81h:03033
- Bočvar, D. A. (with Fukson, V. I.) Estimate of the differences of outer and inner measures. (Russian) 81j:03042
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- Bunder, M. W. Paraconsistent combinatory logic. 81a:03025
- Carnap, Rudolf A basic system of inductive logic. II. 81m:03035a
- Ciesielski, Krzysztof Threshold logic. 81d:03029
- Czudek, J. Protothetics without typical ambiguity of expressions. (Russian) 81h:03028a
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- Doyle, Jon See McDermott, Drew, **81j:03045**
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- Jennings, R. E. See Schotch, P. K., **81a:03027**
- Kabziński, Jacek K. (with Porębka, Małgorzata; Wroński, Andrzej) On (\leftrightarrow, \neg) -reduct of the intuitionistic consequence operation. **81a:03026**
- Kalicki, Craig Infinitary propositional intuitionistic logic. **81e:03025**
- Maslov, S. Ju. Calculi with monotone deductions and their economic interpretation. (Russian. English summary) **81g:03030**
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- Nowaczyk, Adam Categorical languages and variable-binding operators. **81h:03055**
- Parikh, Rohit The completeness of propositional dynamic logic. **81h:03029**.
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- Peschel, K. Möglichkeiten einer formallogischen Darstellung kommunikativer Situationen. **81h:03030**
- Philipp, P. Zum praktischen Schließen. **81h:03031**
- Plochl, Brunetto Note on adequate matrices for general predicate calculi. (Italian. English summary) **81i:03034**
- Porębka, Małgorzata See Kabziński, Jacek K.; et al., **81a:03026**
- Pratt, Vaughan R. Dynamic logic. **81h:03056**
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- Sum, A. A. Propositional semantic systems. (Russian) **81h:03057**
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- Arruda, Ayda I. (with Alves, Elias H.) Some remarks on the logic of vagueness. (**81c:03016a**)
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- Brown, Frank Malloy (with Tärnlund, Sten Åke) Inductive reasoning on recursive equations. (**81e:68029**)
- Cornel, Earl Propositional justification. (**81h:03007**)
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- Klinge Koninck, E. H. Material implication and logical implication. (**81h:03005**)
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- Sharry, Richard Transitivity and conditionals. (**81f:03015a**)
- Skvorcov, D. P. Two generalizations of the concept of a finite problem. (Russian) (**81j:03060**)
- Tärnlund, Sten Åke See Brown, Frank Malloy, (**81e:68029**)
- Valter, M. K. Decision complexity of variants of propositional dynamic logic. (See **81h:68003**)
- Nonmonotonic logic ★Special issue on nonmonotonic logic. (**81d:68119**)
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03B65 Logic of natural languages [See also 68Fxx.]

secondary classifications:

- Grandy, Richard E. Suppes' contribution to logic and linguistics. (See **80m:01040**) (Suppes, Patrick) See Grandy, Richard E., (See **80m:01040**)
- 03B99 None of the above, but in this section
- Blinov, A. L. Game-theoretic semantics and backwards-looking operators. (Russian) **81h:03058**
- Bočvar, D. A. Measures of kernels and reducibility axioms and singlets. **81g:03031**
- Boër, Steven E. (with Edelstein, Roy) Some numerical constructions in English. **81i:03035**
- Czelakowski, Janusz Equivalential logics. I. **81h:03059**
- Reduced products of logical matrices. **81h:03060**
- Darsow, W. (with Kittel, Phyllis M.) On intermediate consequence relations. **81m:03036**
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- Gagnon, Laurence S. Three theories of dialectic. **81d:03031**
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- Some examples concerning uniformity and complexity of sentential logics. **81h:03063**

- Keams, John T. A little more like English. **81d:03032**
- Kittel, Phyllis M. See Darsow, W., **81m:03036**
- McCarthy, John Circumscription—a form of nonmonotonic reasoning. **81i:03036a**
- Addendum: circumscription and other nonmonotonic formalisms. **81i:03036b**
- Nate, Donald E. Algebraic semantics for conditional logics. **81k:03029**
- Prucnal, Tadeusz See Dynda, Kazimiera, **81m:03037**
- Seldin, Jonathan P. A second corrigendum to my paper: "Note on definitional reductions" [Notre Dame J. Formal Logic 9 (1968), 4–6; MR 38 #5629]. **81k:03030**
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- Bäuerle, Rainer Tense logics and natural language. (**81a:03016**)
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- Cull, Paul (with Frank, William) Flaws of form. (**81e:00007**)
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- Harel, David ★First-order dynamic logic. (**81j:68019**)
- Recursion in logics of programs. (**81j:68018**)
- Lejewski, Czesław Postscript: "A note concerning the notion of mereological class" [Notre Dame J. Formal Logic 19 (1978), no. 2, 251–263; MR 58 #16292]. (**81j:03082**)
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- Malinowski, Grzegorz ★Topics in the theory of strengthenings of sentential calculi. (**81f:03032**)
- Nowakowska, Maria Verbal copies. (**81f:68095**)
- Paulos, John A. A model-theoretic explication of the theses of Kuhn and Worf. (**81a:03008**)
- Rolf, Bertil A theory of vagueness. (**81h:03017**)
- Routey, Richard The choice of logical foundations: nonclassical choices and the ultralogical choice. (**81k:03010**)
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03Cxx Model theory

secondary classifications:

- (Baizhanov, B. S.) See Theory of models and its applications, (**81k:03002**)
- Barwise, K. Jon (with Moschovakis, Yiannis N.) Global inductive definability. (**81g:03059**)
- Moschovakis, Yiannis N. See Barwise, K. Jon, (**81g:03059**)
- Theory of models and its applications ★Теория моделей и ее приложения. (Russian) [Theory of models and its applications] (**81k:03002**)

03C05 Equational classes, universal algebra [See also 08Axx.]

- Berman, Joel A proof of Lyndon's finite basis theorem. **81g:03033**
- Pigozzi, Don Universal equational theories and varieties of algebras. **81h:03034**
- Rodrigues, Alexandre H. S. Statmoanalysis. (Portuguese) (See **81j:00009**)
- secondary classifications:
- Fried, E. (with Grätzer, George; Quackenbush, Robert W.) Uniform congruence schemes. (**81m:08013**)
- Gnani, Giuliana Semisimple algebras and filtral algebras. (Italian. English summary) (**81i:08005**)
- Grätzer, George See Fried, E.; et al., (**81m:08013**)
- Hajnal, A. (with Németi, István) Applications of universal algebra, model theory, and categories in computer science. (**81d:68012**)
- Haley, David K. ★Equational compactness in rings. (**81e:16036**)
- Hule, Harald Solutionally complete varieties. (**81i:08007**)
- Jónsson, Bjarni On finitely based varieties of algebras. (**81g:08015**)
- Köhler, Peter (with Pigozzi, Don) Varieties with equationally definable principal congruences. (**81k:08006**)
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- Reiterman, Jan Structure-semantics relation for nonvarietal equational theories. (**81c:08010**)
- Sapir, M. V. Finite and independent axiomatizability of some quasivarieties of semigroups. (Russian) (**81h:20076**)
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- Zlatos, Pavol A characterization of some Boolean powers. (**81m:08004**)
- Bibliography:
Universal algebra, model theory, and categories in computer science See Hajnal, A.; et al., (**81d:68012**)

03C07 Basic properties of first-order languages and structures.

03C10 Quantifier elimination and related topics

- Adams, Alan A note on the realization of types. **81i:03039**
 Boffa, Maurice (with Cherlin, Gregory) Élimination des quantificateurs dans les faisceaux. (English summary) **81i:03037**
 Cherlin, Gregory See Boffa, Maurice, **81i:03037**
 Myers, Dale The Boolean algebra of the theory of linear orders. **81i:03038**
 Rose, Bruce I. Prime quantifier eliminable rings. **81g:03034**

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- van den Dries, Lou A linearly ordered ring whose theory admits elimination of quantifiers is a real closed field. **(81e:03033)**
 Jarden, Moshe An analogue of Čebotarev density theorem for fields of finite corank. **(81d:12010)**
 Mostowski, Tadeusz (with Pfister, Gerhard) Der Cohensche Eliminationssatz in positiver Charakteristik. **(81h:13015)**
 Pfister, Gerhard See Mostowski, Tadeusz, **(81h:13015)**
 Pines, A. G. Eliminability of the quantifiers Q_0 and Q_1 on symmetric groups. (Russian) **(81d:03039)**

03C13 Finite models

03C15 Denumerable models

- Baizanov, B. S. (with Omarov, B.) Omitting models. (Russian. Kazakh summary) **81g:03035**
 Kudaibergenov, K. Ž. A theory with two strongly constructible models. (Russian) **81f:03038**
 Marcus, Leo An expansion of an κ_0 -categorical model. **81b:03035**
 The number of countable models of a theory of one unary function. **81m:03039**
 Omarov, B. See Baizanov, B. S., **81g:03035**
 Pillay, Anand Theories with exactly three countable models and theories with algebraic prime models. **81e:03028**
 Steel, John R. On Vaught's conjecture. **81b:03036**

secondary classifications:

- Gontarov, S. S. The problem of the number of nonautoequivalent constructivizations. (Russian) **(81i:03070)**
 Manaster, Alfred B. (with Rosenstein, Joseph G.) Two-dimensional partial orderings: recursive model theory. **(81d:03047)**
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 Miller, Douglas E. The invariant Π_0^1 separation principle. **(81b:03054)**
 Pillay, Anand Instability and theories with few models. **(81h:03070)**
 Rosenstein, Joseph G. See Manaster, Alfred B., **(81d:03047)**

03C20 Ultraproducts and related constructions

- Banaschewski, Bernhard (with Nelson, Evelyn) Boolean powers as algebras of continuous functions. **81i:03040**
 Kotlarski, Henryk On Skolem ultrapowers and their nonstandard variant. **81m:03040**
 Nelson, Evelyn See Banaschewski, Bernhard, **81i:03040**
 Sgro, J. A. Ultraproduct invariant logics. **81b:03066**

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- Andréka, Hajnal (with Németi, István) Formulas and ultraproducts in categories. **(81m:18004)**
 Butten, Robert W. When do two topologies have the same monads? **(81g:54070)**
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 Némethi, István See Andréka, Hajnal, **(81m:18004)**
 Stern, Jacques Ultrapowers and local properties of Banach spaces. **(81f:46031)**
 Tokarenko, A. I. Axiomatizability of the group-theoretic property \bar{Z} . (Russian) **(81c:20022)**

03C25 Model-theoretic forcing

- Hirschfeld, Joram Finite forcing, existential types and complete types. **81b:03037**
 Lablanche, J.-C. Propriétés de consistance et forcing. **81j:03047**
 Tuschik, Hans-Peter An application of rank-forcing to ω_1 -categoricity. **81i:03041**

03C30 Other model constructions

- Baizanov, B. S. (with Omarov, B.) Restriction of a theory to a formula. (Russian) **81f:03039**
 Gontarov, S. S. The number of nonautoequivalent constructivizations. (Russian) **81i:03067**
 Marcja, Annalisa Boolean products and reduced Boolean products. (Italian) **81m:03041**
 Omarov, B. See Baizanov, B. S., **81f:03039**
 Preisk, Marica D. On the greatest congruence of relations. **81h:03068**
 Reggiani, Cristina SH in direct limits of structures and interpretation. (Italian. English summary) **81i:03042**
 Weisplanning, Volker Lattice products. **81j:03048**

secondary classifications:

- Aragane, Kenichi See Fujiwara, Tsuyoshi, **(81h:08007)**
 Dahn, Bernd I. First order logics for metric structures. **(81g:03006)**
 Fujiwara, Tsuyoshi (with Aragane, Kenichi) Free product decompositions in a regular class. **(81h:08007)**

03C35 Categoricity and completeness of theories

- Baizanov, B. S. (with Omarov, B.) On finite diagrams. (Russian) **81f:03040**
 Baudisch, Andreas Uncountable n -cubes in models of κ_0 -categorical theories. (Russian summary) **81h:03069**
 Felgner, Ulrich Kategorizität. **81c:03020**
 Givant, Steven A representation theorem for universal Horn classes categorical in power. **81b:03038**
 Herre, Heinrich Modelltheoretische Eigenschaften endlichvalenter Graphen. **81h:03031**
 Hirschfeld, Joram Examples in the theory of existential completeness. **81i:03043**
 Manders, Kenneth L. Theories with the existential substructure property. **81c:03021**
 Mustafin, T. G. A non-two-cardinal set of stable types. (Russian) **81f:03041**
 Omarov, B. See Baizanov, B. S., **81f:03040**
 Paljutin, E. A. Categorical positive Horn theories. (Russian) **81f:03042**
 Tuschik, Hans-Peter A reduction of a problem about ω_1 -categoricity. **81d:03033**

secondary classifications:

- Cherlin, Gregory On κ_0 -categorical nilrings. II. **(81j:03053)**
 Felgner, Ulrich The model theory of FC-groups. **(81m:03045)**
 Glass, A. M. W. (with Pierce, Keith R.) Existentially complete abelian lattice-ordered groups. **(81k:03032)**
 Marcja, Annalisa Boolean products and reduced Boolean products. (Italian) **(81m:03041)**
 Marcus, Leo An expansion of an κ_0 -categorical model. **(81b:03035)**
 Myers, Russell W., Jr. Complexity of model-theoretic notions. **(81j:03070)**
 Olin, Philip Urn models and categoricity. **(81h:03081)**
 Pierce, Keith R. See Glass, A. M. W., **(81k:03032)**
 Rose, Bruce I. On the model theory of finite-dimensional algebras. **(81a:03033)**
 Tuschik, Hans-Peter An application of rank-forcing to ω_1 -categoricity. **(81i:03041)**

03C40 Interpolation and preservation theorems; definability

- van Benthem, J. F. A. K. Ramsey eliminability. **81c:03022**
 De Lillo, Nicholas J. Models of an extension of the theory ORD. **81f:03043**
 Ferro, Ruggero Interpolation theorems for $L_{\omega_1\omega}^2$. **81a:03028**
 Makowsky, J. A. Some observations on uniform reduction for properties invariant of the range of definable relations. **81c:03029**
 Reggiani, Cristina Conservation of the SH of type $\forall\exists$ in direct limits. (Italian. English summary) **81a:03029**

secondary classifications:

- Fine, Kit Model theory for modal logic. I. The de re/de dicto distinction. **(81f:03024)**
 Maksimova, L. L. Interpolation theorems in modal logics and amalgamable varieties of topological Boolean algebras. (Russian) **(81j:03031)**
 Marcja, Annalisa Boolean products and reduced Boolean products. (Italian) **(81m:03041)**
 Nishimura, Hirokazu A preservation theorem for tense logic. **(81i:03024)**
 Wasilewska, Anita A constructive proof of Craig's interpolation lemma for m -valued logic. **(81e:03019)**

03C45 Stability and related concepts

- Bekenov, M. I. (with Mustafin, T. G.) On rank functions, definable and indecomposable types in stable theories. (Russian) **81j:03049**
 Mangani, Piero (with Marcja, Annalisa) Shelah rank for Boolean algebras and some application to elementary theories. I. **81i:03044**
 Marcja, Annalisa See Mangani, Piero, **81i:03044**
 Mustafin, T. G. See Bekenov, M. I., **81j:03049**
 Omarov, A. I. Δ -minimality and the finite cover property. (Russian) **81f:03044**
 Pillay, Anand Instability and theories with few models. **81h:03070**
 Shelah, Saharon \star Classification theory and the number of nonisomorphic models. **81a:03030**
 Wood, Carol Notes on the stability of separably closed fields. **81m:03042**

secondary classifications:

- Baldwin, John T. Stability theory and algebra. **(81i:03051)**
 Cherlin, Gregory Stable algebraic theories. **(81i:03052)**
 Groups of small Morley rank. **(81h:03072)**
 Duret, Jean-Louis Les corps pseudo-finis ont la propriété d'indépendance. (English summary) **(81m:03043)**
 Felgner, Ulrich Kategorizität. **(81c:03020)**
 Garavaglia, Steven Decomposition of totally transcendental modules. **(81a:03032)**
 Mustafin, T. G. A non-two-cardinal set of stable types. (Russian) **(81f:03041)**
 Sacks, Gerald E. Effective bounds on Morley rank. **(81a:03035)**

03C50 Models with special properties (saturated, rigid, etc.)

- Anapolitanos, D. A. A new kind of indiscernibles. **81j:03050**
 Charretton, Christine (with Pouzet, Maurice) Les chaînes dans les modèles d'Ehrenfeucht-Mostowski. (English summary) **81d:03034**
 Gillam, D. W. H. Refined Morley numbers. **81i:03045**

Genčarov, S. S. A totally transcendental theory with a nonconstructivizable simple model. (Russian) **81b:03039**

Lerman, Manuel (with Schmerl, James H.) Theories with recursive models. **81g:03036**

Miller, Terrence S. A complete, decidable theory with two decidable models. **81b:03040**
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Ponnet, Maurice See Charetton, Christine. **81d:03034**

Schmerl, James H. See Lerman, Manuel. **81g:03036**

secondary classifications:

Anapolitanos, D. A. Automorphisms of finite order. **(81b:03055)**

Hirschfeld, Joram Finite forcing, existential types and complete types. **(81b:03037)**

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Kudalberginov, K. Ž. A theory with two strongly constructible models. (Russian) **(81f:03038)**

Mijačević, Zarko Saturated Boolean algebras with ultrafilters. **(81i:03053)**

Myers, Russell W., Jr. Complexity of model-theoretic notions. **(81j:03070)**

Richard, Denis Saturation des modèles de Peano. (English summary) **(81f:03079)**

03C52 Properties of classes of models

Cherlin, Gregory Lindenbaum algebras and model companions. **81i:03046**

Manders, Kenneth L. The theory of all substructures of a structure: characterisation and decision problems. **81i:03047**

Plutzer, Charles C. A note on the decomposition of theories with respect to amalgamation, convexity, and related properties. **81a:03031**

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Benenson, I. E. The structure of quasivarieties of models. (Russian) **(81e:08011)**

03C55 Set-theoretic model theory

Ajtai, M. Isomorphism and higher order equivalence. **81j:03052**

Földes, Stéphane On intervals in relational structures. **81i:03048**

Lopez, Gérard L'indéformabilité des relations et multirelations binaires. **81i:03049**

Weaver, George A note on the compactness theorem in first order logic. **81i:03050**

secondary classifications:

Friedman, Harvey On the naturalness of definable operations. **(81d:03055)**

Mustafin, T. G. A non-two-cardinal set of stable types. (Russian) **(81f:03041)**

Plonka, J. On automorphism groups of relational systems and universal algebras. **(81e:04003)**

03C57 Recursion-theoretic model theory [See also 03D45.]

03C60 Model-theoretic algebra [See also 08C10.]

Ash, Chris (with Rosenthal, John) Some theories associated with algebraically closed fields. **81e:03030**

Baldwin, John T. Stability theory and algebra. **81i:03051**

Basarab, Șerban A. A model-theoretic transfer theorem for Henselian valued fields. **81h:03071**

Cherlin, Gregory Stable algebraic theories. **81i:03052**

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On κ_0 -categorical nilrings. **81i:03031**

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Dickmann, Maximiliano Alejandro Sur les anneaux de polynômes à coefficients dans un anneau réel clos. (English summary) **81e:03032**

van den Dries, Lou Algorithms and bounds for polynomial rings. **81f:03045**

A linearly ordered ring whose theory admits elimination of quantifiers is a real closed field. **81e:03033**

Duret, Jean-Louis Les corps pseudo-finis ont la propriété d'indépendance. (English summary) **81m:03043**

Ertov, Ju. I. Multiply valued fields. (Russian) **81m:03044**

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Fujiwara, Tanyoshi Algebraically closed algebraic extensions in universal classes. **81g:03037**

Garavaglia, Steven Decomposition of totally transcendental modules. **81a:03032**

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Jambu-Giraudet, Michèle Théorie des modèles de groupes d'automorphismes

d'ensembles totalement ordonnés 2-homogènes. (English summary) **81f:03046**

Jensen, Christian U. (with Vámos, Peter) On the axiomatizability of certain classes of modules. **81h:03073**

Kufunkov, P. A. Questions of definability in ordered sets. (Russian. English summary) **81g:03038**

Mead, J. (with Nelson, G. C.) Model companions and k -model completeness for the complete theories of Boolean algebras. **81f:03047**

Monk, J. Donald A very rigid Boolean algebra. **81h:03074**

Nelson, G. C. See Mead, J. **81f:03047**

Pierce, Keith R. See Glass, A. M. W. **81k:03032**

Prestel, Alexander Model completions of some theories of modules. **81e:03023**

Romanovski, N. S. The elementary theory of an almost polycyclic group. (Russian) **81d:03035**

Rose, Bruce I. On the model theory of finite-dimensional algebras. **81a:03033**

Rosenthal, John See Ash, Chris. **81e:03030**

Rubia, Matatyahu On the automorphism groups of countable Boolean algebras. **81g:03039**

Seitenov, S. M. The theory of finite fields with an additional predicate that singles out a subfield. (Russian) **81g:03040**

Skornjakov, L. A. Finite axiomatizability of the class of faithful modules. (Russian) **81h:03075**

Stegbauer, Werner A generalized model companion for a theory of partially ordered fields. **81a:03034**

Soborutchenko, I. I. Programmably categorical abelian p -groups. I, II. (Russian) **81f:03048**

Taichin, M. A. Program theories of periodic abelian groups. (Russian) **81j:03054**

Vámos, Peter See Jensen, Christian U. **81h:03073**

Wheeler, William H. Model complete theories of pseudo-algebraically closed fields. **81e:03024**

Model theory of strictly upper triangular matrix rings. **81j:03055**

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Basarab, Șerban A. Towards a general theory of formally p -adic fields. **(81e:12028)**

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Problems. **(81m:16021)**

Dyson, Verena Huber An inductive theory for free products of groups. **(81i:20042)**

Feigner, Ulrich Kategorizität. **(81e:03020)**

Giorgetta, Donato Embeddings in groups of permutations with supports of bounded cardinality. **(81j:20011)**

Heintz, Joes Definability bounds of first order theories of algebraically closed fields. **(81j:03064)**

Jarden, Moshe An analogue of Čebotarev density theorem for fields of finite corank. **(81d:12010)**

Jensen, Christian U. Peano rings of arbitrary global dimension. **(81i:16037)**

Niță, Ana The behavior of ultraproducts of modules under passage to fractions. (Romanian. English summary) **(81d:16024)**

Pinus, A. G. Eliminability of the quantifiers Q_0 and Q_1 on symmetric groups. (Russian) **(81d:03039)**

Polzat, Bruno Une preuve d'un théorème de James Ax sur les extensions algébriques de corps. (English summary) **(81m:12026)**

Sapir, M. V. Finite and independent axiomatizability of some quasivarieties of semigroups. (Russian) **(81h:20076)**

Schmerl, James H. Countable homogeneous partially ordered sets. **(81g:06001)**

Shelah, Saharon On a problem of Kurosh, Jónsson groups, and applications. **(81j:20047)**

Tokarenko, A. I. Axiomatizability of the group-theoretic property Z . (Russian) **(81e:20022)**

Werner, Heinrich See Burris, Stanley. **(81f:08009)**

Wood, Carol Notes on the stability of separably closed fields. **(81m:03042)**

03C62 Models of arithmetic and set theory [See also 03Hxx.]

03C65 Models of other specific theories

Charetton, Christine Type d'ordre des ordinaux de modèles non dénombrables de la théorie des ensembles. **81d:03036**

Ciriță, J. Theories with inclusion. (Russian) **81m:03046**

Gurevich, Yuri Monadic theory of order and topology. II. **81f:03049**

Landrat, Charles K. $L_{\omega\omega}$ equivalence between countable and uncountable linear orderings. **81j:03056**

Mijačević, Zarko Saturated Boolean algebras with ultrafilters. **81i:03053**

secondary classifications:

Anapolitanos, D. A. Automorphisms of finite order. **(81b:03055)**

Cherlin, Gregory On κ_0 -categorical nilrings. II. **(81j:03053)**

Herre, Heinrich Modelltheoretische Eigenschaften endlichvalenter Graphen. **(81k:03031)**

Jambu-Giraudet, Michèle Théorie des modèles de groupes d'automorphismes

d'ensembles totalement ordonnés 2-homogènes. (English summary) **(81f:03046)**

Kozen, Dexter Complexity of Boolean algebras. **(81e:03008)**

Manaster, Alfred B. (with Rosenstein, Joseph G.) Two-dimensional partial orderings: recursive model theory. **(81d:03047a)**

Prestel, Alexander (with Szczerba, Lesław W.) Nonaxiomatizability of real general affine geometry. **(81a:03013)**

v. Rimscha, Michael Mengentheoretische Modelle des λK -Kalküls. **(81g:03012)**

Rosenstein, Joseph G. See Manaster, Alfred B. **(81d:03047a)**

Szczerba, Lesław W. (with Tarski, A.) Metamathematical discussion of some affine geometries. **(81a:03012)**

See also Prestel, Alexander. **(81a:03013)**

Tarski, A. See Szczerba, Lesław W. **(81a:03012)**

03C68 Other classical first-order model theory

03C70 Logic on admissible sets

Barwise, K. Jon Monotone quantifiers and admissible sets. **81d:03037**

Friedman, Sy D. HC of an admissible set. **81i:03054**

Harrink, Victor Game sentences, recursive saturation and definability. **81h:03076**

Sacks, Gerald E. Effective bounds on Morley rank. **81a:03035**

Stark, William Richard A forcing approach to strict- Π_1^1 reflection and strict- Π_1^1 - Σ_1^1 . **81e:03025**

Martin's axiom in the model theory of L_A . **81a:03036**

secondary classifications:

Miller, Douglas E. The invariant Π_1^1 separation principle. **(81b:03054)**

Steel, John R. On Vaught's conjecture. **(81b:03036)**

03C75 Other infinitary logic

- Cellucci, Carlo Coherence and completeness properties in $L_{\omega_1, \omega}$. (Italian. English summary) **81m:03047**
- Gold, Bonnie Compact and ω -compact formulas in $L_{\omega_1, \omega}$. **81a:03037**
- Guichard, David R. A many-sorted interpolation theorem for $L(Q)$. **81i:03055**
- Savi, Jonathan Compactness properties of infinitary and abstract languages. I. General results. **81d:03038**

secondary classifications:

- Burgess, John P. On the Hanf number of Souslin logic. **(81c:03026)**
- de Jongh, Dick H. J. A class of intuitionistic connectives. **(81m:03013)**
- Landraitis, Charles K. $L_{\omega_1, \omega}$ equivalence between countable and uncountable linear orderings. **(81j:03056)**
- Miller, Douglas E. The invariant Π^1_2 separation principle. **(81b:03054)**
- Väinänen, Jouko The Hanf number of $L_{\omega_1, \omega}$. **(81f:03061)**

03C80 Logic with extra quantifiers and operators [See also 03B45.]

- Budger, Lee Beth's property fails in $L^{<\omega}$. **81h:03077**
- Burgess, John P. On the Hanf number of Souslin logic. **81c:03026**
- da Costa, Newton C. A. A model-theoretical approach to variable binding term operators. **81i:03056**
- Dulac, Malgorzata Generalized quantifiers in models of set theory. **81j:03057**
- Gostanian, Richard (with Hrbáček, Karel) Propositional extensions of $L_{\omega_1, \omega}$. **81i:03057**
- Hrbáček, Karel See Gostanian, Richard, **81i:03057**
- Makowsky, J. A. (with Shelah, Saharon) The theorems of Beth and Craig in abstract model theory. I. The abstract setting. **81b:03041**
- Plass, A. G. Eliminability of the quantifiers Q_0 and Q_1 on symmetric groups. (Russian) **81d:03039**
- Rubin, Matatyahu (with Shelah, Saharon) On the elementary equivalence of automorphism groups of Boolean algebras; downward Skolem-Löwenheim theorems and compactness of related quantifiers. **81h:03078**
- Sgro, J. A. Interpolation fails for the Souslin-Kleene closure of the open set quantifier logic. **81m:03048**
- Shelah, Saharon See Makowsky, J. A., **81b:03041** and Rubin, Matatyahu, **81h:03078**
- Väinänen, Jouko Remarks on free quantifier variables. **81b:03042**
- Boolean-valued models and generalized quantifiers. **81m:03049**
- A quantifier for isomorphisms. **81j:03058**

secondary classifications:

- Daniels, Charles B. (with Freeman, James B.) A logic of generalized quantification. **(81m:03022)**
- Fine, Kit Model theory for modal logic. I. The de re/de dicto distinction. **(81f:03024)**
- Freeman, James B. See Daniels, Charles B., **(81m:03022)**
- Guichard, David R. A many-sorted interpolation theorem for $L(Q)$. **(81i:03055)**
- Herre, Heinrich (with Wolter, Helmut) Entscheidbarkeit der Theorie der linearen Ordnung in Logiken mit Mächtigkeitsquantoren bzw. mit Chang-Quantor. **(81a:03010)**
- Parikh, Rohit The completeness of propositional dynamic logic. **(81b:03029)**
- Tuschke, Hans-Peter On the decidability of the theory of linear orderings with generalized quantifiers. **(81m:03016)**
- Wolter, Helmut See Herre, Heinrich, **(81a:03010)**

03C85 Second- and higher-order model theory

- Fensel, Jens Erik Models for natural languages. **81g:03041**
- Flum, Jörg (with Ziegler, Martin) Topological model theory. **81j:03059**
- Gurevich, Yuri Modest theory of short chains. I. **81a:03038a**
- (with Shelah, Saharon) Modest theory of short chains. II. **81a:03038b**
- Schwabhauser, Wolfram Nonfinitizability of a weak second-order theory. **81h:03079**
- Shelah, Saharon See Gurevich, Yuri, **81a:03038b**
- Thomas, Wolfgang On the bounded monadic theory of well-ordered structures. **81h:03080**
- Ziegler, Martin See Flum, Jörg, **81j:03059**

secondary classifications:

- Ajtai, M. Isomorphism and higher order equivalence. **(81j:03052)**
- Apt, K. R. Inductive definitions, models of comprehension and invariant definability. **(81c:03048)**
- Boudreau, Jack C. Frames versus minimally restricted structures. **(81h:03025)**
- Cocchiarella, Nino Nominalism and conceptualism as predicative second-order theories of predication. **(81j:03026)**
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- Sain, I. There are general rules for specifying semantics: observations of abstract model theory. **(81d:03040)**
- Shelah, Saharon See Rubin, Matatyahu, **(81h:03078)**

03C90 Nonclassical models (Boolean-valued, sheaf, etc.)

- Ellerman, David P. (with Rota, Gian-Carlo) A measure-theoretic approach to logical quantification. **81c:03027**
- Öls, Philip Urn models and categoricity. **81h:03081**
- Reyes, Gonzalo E. Théorie des modèles et faisceaux. **81i:03050**
- Rota, Gian-Carlo See Ellerman, David P., **81c:03027**
- Skravov, D. P. Two generalizations of the concept of a finite problem. (Russian) **81j:03060**

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- Goldblatt, Robert I. Topoi. **(81a:03063)**
- Rousseau, Christiane Topos theory and complex analysis. **(81d:32014)**
- Väinänen, Jouko Boolean-valued models and generalized quantifiers. **(81m:03049)**
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03C95 Abstract model theory

- Sain, I. There are general rules for specifying semantics: observations of abstract model theory. **81d:03040**
- Väinänen, Jouko Abstract logic and set theory. I. Definability. **81i:03058**

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- Makowsky, J. A. (with Shelah, Saharon) The theorems of Beth and Craig in abstract model theory. I. The abstract setting. **(81b:03041)**
- Sgro, J. A. Ultraproduct invariant logics. **(81h:03066)**
- Shelah, Saharon See Makowsky, J. A., **(81b:03041)**
- Savi, Jonathan Compactness properties of infinitary and abstract languages. I. General results. **(81d:03038)**
- Väinänen, Jouko Remarks on free quantifier variables. **(81b:03042)**
- A quantifier for isomorphisms. **(81j:03058)**

03C99 None of the above, but in this section

- Andrka, Hajnal (with Németi, István) Injectivity in categories to represent all first order formulas. I. **81h:03082**
- Janos, László Topological dimension as a first-order property. (Italian summary) **81a:03039**
- Lynch, James F. Almost sure theories. **81h:03059**
- Németi, István See Andrka, Hajnal, **81h:03082**
- Roisin, J.-R. On functorializing usual first-order model theory. **81f:03051**
- Shafast, Ahmad Consistency in categorical languages for algebras. **81j:03061**

secondary classifications:

- Franci, Raffaella An observation on Galois correspondences. (Italian. English summary) **(81c:06004)**
- Gumb, Raymond D. Metaphor theory. **(81c:03005)**
- Nishimura, Hirokazu Saturated and special models in modal model theory with applications to the modal and de re hierarchies. **(81h:03023)**
- Rest, Michal On models in the alternative set theory. **(81c:03053)**
- Šajda, Josef On probability of first order formulas in a given model. **(81d:60002)**

03Dxx Recursion theory

- Marzullo, Angelo (with Ukovich, Walter) An introduction to some basic concepts and techniques in the theory of computable functions. (See **80a:68102**)
- Ukovich, Walter See Marzullo, Angelo, (See **80a:68102**)

secondary classifications:

- Cutland, Nigel Computability. **(81i:03001)**
- Davis, Martin What is a computation? (See **80b:00007**)
- (Drake, F. R.) See Recursion theory: its generalisations and applications, **(81j:03007)**
- (Hayes, J. E.) See Machine intelligence, **(81f:68100)**
- (Miche, Donald) See Machine intelligence, **(81f:68100)**
- (Mikusić, L. I.) See Machine intelligence, **(81f:68100)**
- (Pollak, E. A.) See Recursive functions, **(81m:03007)**
- (Wainer, S. S.) See Recursion theory: its generalisations and applications, **(81j:03007)**
- Colloquium:
- Logic Recursion theory: its generalisations and applications. **(81j:03007)**
- Leeds Recursion theory: its generalisations and applications. **(81j:03007)**
- Logic Recursion theory: its generalisations and applications. **(81j:03007)**
- Machine intelligence Machine intelligence. Vol. 9. **(81f:68100)**
- Recursion theory: its generalisations and applications Recursion theory: its generalisations and applications. **(81j:03007)**
- Recursive functions Рекурсивные функции. (Russian) [Recursive functions] **(81m:03007)**

03D03 Thue and Post systems, etc.

- Falkenberg, Bernhard Halteprobleme von Fang-Systemen (tag systems). **81i:03060**
- Priese, Lutz Über ein 2-dimensionales Thue-System mit zwei Regeln und unentscheidbarem Wortproblem. **81d:03041**

secondary classifications:

- Hesse, W. A correspondence between W-grammars and formal systems of logic and its application to formal language description. **(81d:68098)**
- Hughes, Charles E. (with Straight, David W.) Word problems for bidirectional, single-premise Post systems. **(81h:03089)**
- Kudlek, Manfred Context free normal systems. **(81f:68104)**
- Nguyen Xuan My Some classes of semi-Thue systems. (German and Russian summaries) **(81j:68094)**
- Straight, David W. See Hughes, Charles E., **(81h:03089)**

03D05 Automata and formal grammars in connection with logical questions [See also 18B20, 68Dxx, 68F10.]

- von Braunnühl, Burchard (with Verbeek, Rutger) Finite-change automata. **81j:03062**
 Buszkowski, Wojciech Logical complexity of some classes of tree languages generated by multiple-tree-automata. **81c:03028**
 Nepomniachtch, V. A. Examples of predicates inexpressible by s -rudimentary formulas. (Russian. English summary) **81h:03083**
 Verbeek, Rutger See von Braunnühl, Burchard, **81j:03062**

secondary classifications:

- Balcer, Marek (with Mika, Andrzej; Pizoń, Tomasz) The construction of admissible words of a certain alphabet as equivalent concepts by means of arithmetic term expressions. (Polish. Russian and French summaries) **(81i:68121a)**
 (with Mika, Andrzej; Pizoń, Tomasz) A theorem on the equivalence of the definitions of admissible words of a certain alphabet and arithmetic term expressions. (Polish. Russian and French summaries) **(81i:68121b)**
 (with Mika, Andrzej; Pizoń, Tomasz) An algorithm for deciding the truth of an equation between two arbitrary arithmetic expressions. (Polish. Russian and French summaries) **(81i:68121c)**
 Boudol, Gérard A new recursion induction principle. **(81j:68014)**
 Culik, Karel, II (with Maurer, Hermann A.) On simple representations of language families. (French summary) **(81d:68093)**
 DeMillo, Richard A. (with Lipton, Richard J.) A constructive generalization of the Borel-Cantelli lemma with application to the complexity of infinite strings. **(81e:68058)**
 Ehrenfeucht, Andrzej (with Rozenberg, Grzegorz; Verraedt, R.) Many-to-one simulation in EOL forms is decidable. **(81h:68065)**
 Engelfriet, Joost (with Rozenberg, Grzegorz) Fixed point languages, equality languages, and representation of recursively enumerable languages. **(81f:68061)**
 Freivalds, Rūsiņš (with Wiehagen, R.) Inductive inference with additional information. (Russian and German summaries) **(81e:03036)**
 Glushkov, V. M. Incompleteness theorem of formal theories from programmer's viewpoint. **(81g:68076)**
 Golumkov, Ju. V. (with Knjazev, E. A.) Completeness of systems of commands with a finite set of memory states. (Russian) **(81h:68035)**
 Grant, Philip W. Some more independence results in complexity theory. **(81m:03051)**
 Inoue, Katsushi (with Takanami, Itsuo) Closure properties of the classes of sets accepted by automata on a two-dimensional tape under two operations. **(81i:68075)**
 (with Takanami, Itsuo) A note on decision problems for three-way two-dimensional finite automata. **(81h:68036)**
 Kannan, Ravindran (with Lipton, Richard J.) The orbit problem is decidable. (See **81j:68006**)
 Knjazev, E. A. See Golumkov, Ju. V., **(81h:68035)**
 Lipton, Richard J. See DeMillo, Richard A., **(81e:68058)** and Kannan, Ravindran, (See **81j:68006**)
 Lisovik, L. P. The comparison of finitely many-valued transformations of finite automata. (Russian) **(81b:68100)**
 Maurer, Hermann A. (with Salomaa, Arto; Wood, Derick) Pure grammars. **(81d:68103)**
 See also Culik, Karel, II, **(81d:68093)**
 Mika, Andrzej See Balcer, Marek; et al., **(81i:68121a)**; **(81i:68121b)** and **(81i:68121c)**
 Mikolajczak, Bolesław On the simulation problem of a set of automata. **(81g:68083)**
 Monien, Burkhard Two-way multihead automata over a one-letter alphabet. (French summary) **(81i:68077)**
 Pizoń, Tomasz See Balcer, Marek; et al., **(81i:68121a)**; **(81i:68121b)** and **(81i:68121c)**
 Plotkin, Gordon LCF considered as a programming language. **(81e:68016)**
 Rozenberg, Grzegorz See Engelfriet, Joost, **(81f:68061)** and Ehrenfeucht, Andrzej; et al., **(81h:68065)**
 Salomaa, Arto See Maurer, Hermann A.; et al., **(81d:68103)**
 Šeper, Kajetan Algorithmic constructions inspired by Caporaso. **(81a:68040)**
 Takanami, Itsuo See Inoue, Katsushi, **(81h:68036)** and Inoue, Katsushi, **(81i:68075)**
 Ukkonen, Esko A decision method for the equivalence of some non-real-time deterministic pushdown automata. (See **81j:68006**)
 Verraedt, R. See Ehrenfeucht, Andrzej; et al., **(81h:68065)**
 Wiehagen, R. See Freivalds, Rūsiņš, **(81e:03036)**
 Wood, Derick See Maurer, Hermann A.; et al., **(81d:68103)**
 Yamasaki, Hideki On multitape automata. **(81e:68067)**

03D10 Turing machines and related notions [See also 68C40.]

- Freivalds, Rūsiņš Running time for deterministic and nondeterministic Turing machines. (Russian) **81d:03042**
 Gregorič, Ljudmila (with Korec, Ivan) Small universal Minsky machines. **81g:03042**
 Korec, Ivan See Gregorič, Ljudmila, **81g:03042**
 Marinescu, Daniela A universal Turing machine with three tapes for normal algorithms. (Romanian. French summary) **81a:03040**
 Petri, N. V. Unsolvability of the problem of recognition of cancelling iterative nets. (Russian) **81g:03043**
 Sager, Herbert The nature of reduction in Turing machines and its relation to reduction in automata. **81g:03044**
 Wechsung, Gerd A crossing measure for 2-tape Turing machines. **81e:03034**
 Žarov, V. G. Complexity of terms of constructive sequences of Turing machines. (Russian) **81g:03045**

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- Aanderaa, Stål (with Cohen, Daniel E.) Modular machines, the word problem for finitely presented groups and Collins' theorem. **(81m:20048)**

(with Cohen, Daniel E.) Modular machines and the Higman-Clapham-Valier embedding theorem. **(81m:20049)**

- Benioff, Paul The computer as a physical system: a microscopic quantum mechanical Hamiltonian model of computers as represented by Turing machines. **(81m:68040)**
 von Braunnühl, Burchard (with Verbeek, Rutger) Finite-change automata. **(81j:03062)**
 Cazacu, Maria A general mathematical notion of the algorithm. (Romanian summary) **(81g:68046)**
 Cohen, Daniel E. See Aanderaa, Stål, **(81m:20048)** and **(81m:20049)**
 Cohen, Rina (with Gold, Arie) On the complexity of ω -type Turing acceptors. **(81d:68061)**
 Fortune, Steven (with Wyllie, James) Parallelism in random access machines. **(81i:68036)**
 Freivalds, Rūsiņš Finite identification of general recursive functions by probabilistic strategies. **(81j:03074)**
 Fast probabilistic verification of number multiplication. **(81h:68026)**
 Speeding the recognition of certain sets by the use of a random number transducer. (Russian) **(81i:68083)**
 Gold, Arie See Cohen, Rina, **(81d:68061)**
 Grigor'ev, D. Ju. Time complexity of multidimensional Turing machines. (Russian. English summary) **(81a:68058)**
 Inoue, Katsushi (with Takanami, Itsuo) A note on closure properties of the classes of sets accepted by tape-bounded two-dimensional Turing machines. **(81i:68071)**
 Orman, Gabriel An automata realization of the functions associated with a derivation. (Romanian. English summary) **(81e:68103)**
 Passy, Solomon Structured programs for Turing machines. **(81h:68080)**
 Priese, Lutz Über eine minimale universelle Turing-Maschine. **(81j:68063)**
 Towards a precise characterization of the complexity of universal and nonuniversal Turing machines. **(81k:03035)**
 Sipser, Michael Halting space-bounded computations. **(81e:68037)**
 Takanami, Itsuo See Inoue, Katsushi, **(81i:68071)**
 Verbeek, Rutger See von Braunnühl, Burchard, **(81j:03062)**
 Vitányi, Paul M. B. On the power of real-time Turing machines under varying specifications (extended abstract). **(81j:68065)**
 Wiedmer, E. Computing with infinite objects. **(81e:68039)**
 Wyllie, James See Fortune, Steven, **(81i:68036)**
 Žák, Stanislav A Turing machine oracle hierarchy. (See **81e:68004**)
 A Turing machine oracle hierarchy. I, II. **(81k:03036)**
 Zaslavskii, I. D. Realization of three-valued logical functions by means of recursive and Turing operators. (Russian) **(81i:03031)**

03D15 Complexity of computation

- Bennison, Victor L. Recursively enumerable complexity sequences and measure independence. **81j:03063**
 Berman, Piotr Complexity of the theory of atomless Boolean algebras. **81k:03033**
 Dehtjar', M. I. Bounds on computational complexity and approximability of initial segments of recursive sets. **81g:03046**
 DeMillo, Richard A. (with Lipton, Richard J.) Some connections between mathematical logic and complexity theory. **81h:03084**
 Doshita, Shuji See Yamasaki, Susumu; et al., **81j:03065**
 Grant, Philip W. Some more independence results in complexity theory. **81m:03051**
 Heintz, Joos Definability bounds of first order theories of algebraically closed fields. **81j:03064**
 Ishibashi, Toshihiko See Yamasaki, Susumu; et al., **81j:03065**
 Kanovik, Max I. A complexity version of Gödel's incompleteness theorem. **81e:03035**
 Lipton, Richard J. On the consistency of $P=NP$ and fragments of arithmetic. **81k:03044**
 See also DeMillo, Richard A., **81h:03084**
 Marandžijan, G. B. On the sets of minimal indices of partial recursive functions. **81f:03052**
 Paul, Wolfgang J. On time hierarchies. **81b:03043**
 Priese, Lutz Towards a precise characterization of the complexity of universal and nonuniversal Turing machines. **81k:03035**
 Sarkisjan, A. D. Realization of arithmetic functions on iterative networks. (Russian. Armenian summary) **81c:03029**
 Sarkisjan, G. Z. The class of arithmetic functions that are calculated with the aid of systems of functional elements. (Russian. Armenian summary) **81d:03043**
 Wagner, Klaus Bounded recursion and complexity classes. **81h:03085**
 Yamasaki, Susumu (with Ishibashi, Toshihiko; Doshita, Shuji) Unit resolution for a subclass of the Ackermann class. **81j:03065**
 Žák, Stanislav A Turing machine oracle hierarchy. I, II. **81k:03036**

secondary classifications:

- Adleman, Leonard See Manders, Kenneth L., **(81e:68032)**
 Ausiello, Giorgio (with Marchetti-Spaccamela, A.; Protasi, M.) Toward a unified approach for the classification of NP-complete optimization problems. **(81k:68027)**
 Baraško, A. S. Boundary sets in the theory of enumerations. (Russian. English summary) **(81j:03068)**
 Bel'jukov, A. P. A computer description and a hierarchy of initial Grzegorzczak classes. (Russian. English summary) **(81c:03030)**
 Book, Ronald V. Complexity classes of formal languages (preliminary report). **(81i:68055)**
 Bürger, Egon (with Kleine-Büning, Hans) The reachability problem for Petri nets and decision problems for Skolem arithmetic. **(81h:68034)**
 Breitbart, Yuri (with Lewis, Forbes D.) Combined complexity classes for finite functions. (French summary) **(81a:68044)**
 Bruss, Anna R. (with Meyer, Albert R.) On time-space classes and their relation to the theory of real addition. **(81i:68056)**
 Constable, Robert L. See Hunt, H. B., III; et al., **(81j:68051)**
 Dailey, David P. Uniqueness of colorability and colorability of planar 4-regular graphs are NP-complete. **(81e:68045)**

- Daley, Robert P. On the simplification of constructions in degrees of unsolvability via computational complexity. (See 81c:68004)
- Dancin, E. Ja. Parameters defining the time of tautology recognition by the splitting method. (Russian) (81f:68130)
- Dardanijs, G. K. The polynomial complexity of deduction in some logical calculi. (Russian. English summary) (81a:03055)
- DeMillo, Richard A. (with Lipton, Richard J.) The consistency of "P=NP" and related problems with fragments of number theory. (See 81j:68006)
- Dezani-Ciancaglini, M. (with Ronchi Della Rocca, S.; Saitta, Lorenza) Complexity of λ -term reductions. (French summary) (81j:68016)
- Di Paola, Robert A. The operator gap theorem in α -recursion theory. (81c:03038)
- Dymond, Patrick W. Indirect addressing and the time relationships of some models of sequential computation. (81h:68024)
- Ferrante, Jeanne (with Rackoff, Charles W.) ★The computational complexity of logical theories. (81d:03013)
- Freivalds, Rūsiņš Running time for deterministic and nondeterministic Turing machines. (Russian) (81d:03042)
- Garey, M. R. (with Johnson, David S.; Miller, Gary L.; Papadimitriou, Christos H.) The complexity of coloring circular arcs and chords. (81g:68065)
- Gat, Georg On schemata and L systems for parallel algorithms. (French summary) (81c:68028)
- Gonzalez, Teofilo F. (with Ja'Ja', Joseph) On the complexity of computing bilinear forms with $\{0, 1\}$ constants. (81h:68027)
- Grigor'ev, D. Ju. Time complexity of multidimensional Turing machines. (Russian. English summary) (81a:68058)
- Gurari, Eltan M. (with Ibarra, Oscar H.) An NP-complete number-theoretic problem. (81c:68034)
- (with Ibarra, Oscar H.) The complexity of the equivalence problem for counter machines, semilinear sets, and simple programs. (81d:68057)
- Hodžajanc, M. Ju. Some characteristics of enumeration operators. (Russian. Armenian and English summaries) (81c:03033)
- Hrapienko, V. M. The relation between complexity and depth of formulas. (Russian) (81d:04035)
- Hunt, H. B., III Observations on the complexity of regular expression problems. (81h:68028)
- (with Constable, Robert L.; Sahni, Sartaj) On the computational complexity of program scheme equivalence. (81j:68051)
- Huyh Thiet-Dung On complexity measures which are induced by probability distributions. (81h:68046)
- Ibarra, Oscar H. See Gurari, Eltan M. (81c:68034) and (81d:68057)
- Ja'Ja', Joseph On the complexity of bilinear forms with commutativity. (81d:68058)
- See also Gonzalez, Teofilo F., (81h:68027)
- Johnson, David S. See Garey, M. R.; et al., (81g:68065)
- Kleine-Büning, Hans See Börger, Egon. (81h:68034)
- Kozen, Dexter Complexity of Boolean algebras. (81c:03008)
- Kramosil, Ivan A note on computational complexity of a statistical deducibility testing procedure. (81e:68113)
- Lewis, Forbes D. See Breitbart, Yuri. (81a:68044)
- Lipton, Richard J. See DeMillo, Richard A. (See 81j:68006)
- Mahaney, Stephen R. Sparse complete sets for NP: solution of a conjecture of Berman and Hartmanis. (81k:68033)
- Manders, Kenneth L. (with Adleman, Leonard) NP-complete decision problems for binary quadratics. (81c:68032)
- Marchetti-Spaccamela, A. See Ausiello, Giorgio; et al., (81k:68027)
- Meyer, Albert R. (with Winklmann, K.) The fundamental theorem of complexity theory (preliminary version). (81b:68053)
- See also Brass, Anna R., (81b:68056)
- Miller, Gary L. See Garey, M. R.; et al., (81g:68065)
- Monien, Burkhard On a subclass of pseudopolynomial problems. (See 81k:68003)
- O'Donnell, Michael A programming language theorem which is independent of Peano arithmetic. (81d:68015)
- Palomov, S. V. Machine-independent description of some machine complexity classes. (Russian. English summary) (81a:68057)
- Papadimitriou, Christos H. See Garey, M. R.; et al., (81g:68065)
- Protasi, M. See Ausiello, Giorgio; et al., (81k:68027)
- Rackoff, Charles W. See Ferrante, Jeanne. (81d:03013)
- Ronchi Della Rocca, S. See Dezani-Ciancaglini, M.; et al., (81j:68016)
- Sabel'feld, V. K. Polynomial estimation of the complexity of recognizing logical term equivalence. (Russian) (81g:68072)
- Sahni, Sartaj See Hunt, H. B., III; et al., (81j:68051)
- Saitta, Lorenza See Dezani-Ciancaglini, M.; et al., (81j:68016)
- Savitch, Walter J. See Stinson, Michael J., (81c:68038)
- Selman, Alan L. p -selective sets, tally languages, and the behavior of polynomial time reducibilities on NP (preliminary report). (81j:68055)
- p -selective sets, tally languages, and the behavior of polynomial time reducibilities on NP. (81a:68066)
- Shamir, Adi Factoring numbers in $O(\log n)$ arithmetic steps. (81b:68066)
- Stark, William Richard Type hierarchies and type-level reduction. I. (81g:03009)
- Stinson, Michael J. (with Savitch, Walter J.) Hierarchies of recursive computations. (81c:68038)
- Stork, Hans-Georg Remarks on the satisfiability problem of propositional logic. (81h:68058)
- Trahtenbrot, B. A. Bemerkungen zur Kompliziertheit der Berechnungen auf stochastischen Automaten. (81f:68070)
- Verbeek, Rutger (with Wehrauch, Klaus) Data presentation and computational complexity. (81b:68059)
- Wagner, Klaus On ω -regular sets. (81f:68070)
- (with Wechsung, Gerd) Kompliziertheithierarchien. (Russian and English summaries) (81h:68033)
- Wechsung, Gerd A crossing measure for 2-tape Turing machines. (81e:03034)
- See also Wagner, Klaus. (81h:68033)
- Wehrauch, Klaus See Verbeek, Rutger. (81b:68059)
- Winklmann, K. See Meyer, Albert R., (81b:68053)

03D20 Recursive functions and relations, subrecursive hierarchies

- Arslanov, M. M. Weakly recursively enumerable degrees and limiting computability. (Russian) 81i:03061
- Bel'jakov, A. P. A computer description and a hierarchy of initial Grzegorzczk classes. (Russian. English summary) 81c:03030
- Calude, Cristian (with Marcus, Solomon; Tey, Ionel) Recursive properties of Sudan function. 81f:03053
- Chen, Tsong Yueh Formalization of correctness of recursive definitions. 81g:03047
- Deutsch, Michael Zur gödelisierungsfreien Darstellung der rekursiven und primitiv-rekursiven Funktionen und rekursiv aufzählbaren Prädikate über Quotiententermengen. 81g:03048
- Fachini, E. (with Maggiolo-Schettini, Andrea) A hierarchy of primitive recursive sequence functions. (French summary) 81i:03062
- Freivalds, Rūsiņš (with Wiehagen, R.) Inductive inference with additional information. (Russian and German summaries) 81c:03036
- Goetze, Bernhard (with Nehrlich, Werner) The structure of loop programs and subrecursive hierarchies. 81j:03066
- Hay, Louise Convex subsets of $2^{\mathbb{N}}$ and bounded truth-table reducibility. 81c:03031
- Horowitz, Bruce M. Constructively nonpartial recursive functions. 81c:03037
- Jantke, Klaus-P. Universal methods for identification of total recursive functions. 81c:03032
- Korol'kov, Ju. D. Families of general recursive functions without isolated points. (Russian) 81a:03041
- Lavrov, I. A. Computability of partial functions and enumerability of sets in Peano arithmetic. (Russian) 81d:03044
- Lisagor, I. R. The Banach-Mazur game. (Russian) 81c:03038
- Maggiolo-Schettini, Andrea See Fachini, E., 81i:03062
- Marčenko, S. S. A method of constructing maximal subalgebras in algebras of general recursive functions. (Russian) 81a:03042
- A basis with respect to superposition in the class of functions that are elementary in the sense of Kalmár. (Russian) 81c:03039
- Existence of bases with respect to superposition in countable primitive recursively closed classes of one-place functions. (Russian) 81j:03067
- Marcus, Solomon See Calude, Cristian; et al., 81f:03053
- Nehrich, Werner See Goetze, Bernhard, 81j:03066
- Prank, R. Expressibility in the elementary theory of recursive sets with realizability logic. (Russian. English summary) 81a:03043
- Proskurin, A. V. Positive rudimentarity of the graphs of Ackermann and Grzegorzczk functions. (Russian. English summary) 81b:03044
- Šanin, N. A. Canonical recursive functions and operations. (Russian. English summary) 81a:03044
- Schäzel, Britta Classes of decompositions of a Gödel numbering. 81k:03037a
- Zerlegung mit Vergleichsbedingungen einer Gödelnummerierung. 81k:03037b
- Tey, Ionel See Calude, Cristian; et al., 81f:03053
- Verbeek, Rutger ★Primitiv-rekursive Grzegorzczk-Hierarchien. (German) [Primitively recursive Grzegorzczk hierarchies] 81h:03006
- Wiehagen, R. See Freivalds, Rūsiņš, 81c:03036

secondary classifications:

- Blakley, G. R. (with Borosh, I.) Knuth's iterated powers. (81e:05026)
- Borosh, I. See Blakley, G. R., (81e:05026)
- Chen, Tsong Yueh Formalization of equivalence of recursively defined functions. (81f:68020)
- Freivalds, Rūsiņš Finite identification of general recursive functions by probabilistic strategies. (81j:03074)
- Golunkov, Ju. V. The completeness of operations in systems of algorithmic algebras. (Russian) (81k:08001)
- Jablonskii, S. V. Some results in the theory of functional systems. (Russian) (81j:03038)
- Jantke, Klaus-P. Natural properties of strategies identifying recursive functions. (German and Russian summaries) (81d:68014)
- Jones, James P. Diophantine representation of Mersenne and Fermat primes. (81a:10020)
- Levitz, Hilbert An ordinal bound for the set of polynomial functions with exponentiation. (81f:04003)
- Marandijan, G. B. On the sets of minimal indices of partial recursive functions. (81j:03052)
- Zaslavskii, I. D. Realization of three-valued logical functions by means of recursive and Turing operators. (Russian) (81i:03031)

03D25 Recursively enumerable sets and degrees

- Baraško, A. S. Boundary sets in the theory of enumerations. (Russian. English summary) 81j:03068
- Buharev, N. R. Properties of limiting enumerability of complements of recursively enumerable sets. (Russian) 81i:03063
- Bulitko, V. K. Linear table reduction in the sense of Žegalkin. (Russian) 81h:03087
- Hay, Louise (with Johnson, Nancy) Extensional characterization of index sets. 81c:03040
- Herrmann, Eberhard ★Der Verband der rekursiv aufzählbaren Mengen. (German) [The lattice of recursively enumerable sets] 81c:03041
- The lattice structure of the recursively enumerable sets. 81i:03064
- Hodžajanc, M. Ju. Some characteristics of enumeration operators. (Russian. Armenian and English summaries) 81c:03033
- Jędrzejewicz, Joanna Inverse derivability and confluence problems of deterministic combinatorial systems. 81d:03045
- Johnson, Nancy See Hay, Louise, 81c:03040

Lerman, Manuel (with Shore, Richard A.; Soare, Robert I.) r -maximal major subsets. **81g:03049**

(with Soare, Robert I.) A decidable fragment of the elementary theory of the lattice of recursively enumerable sets. **81c:03034**

Omanadze, R. Š. Q -reducibility. (Russian. Georgian and English summaries) **81b:03045**

Rozinas, M. G. (with Solon, B. Ja.) Weakly semirecursive sets. (Russian) **81d:03046**

Šen', A. H. The priority method and separation problems. (Russian) **81b:03046**

Shore, Richard A. $\Sigma^*(K)$ and other lattices of recursively enumerable sets. **81h:03088**

See also Lerman, Manuel; et al. **81g:03049**

Soare, Robert I. Recursively enumerable sets and degrees. **81g:03050**

Recursive enumerability. **81k:03038**

See also Lerman, Manuel, **81c:03034** and **81g:03049**

Solon, B. Ja. See Rozinas, M. G., **81d:03046**

Tanaka, Hisao. Recursion theory in analytical hierarchy. **81j:03069**

secondary classifications:

Dęstev, A. N. Reducibilities of the truth-table type in the theory of algorithms. (Russian) **81a:03045**

Epstein, Richard L. ★Degrees of unsolvability: structure and theory. **81c:03042**

Falkenberg, Bernhard. Halteprobleme von Fang-Systemen (tag systems). **81i:03060**

Horowitz, Bruce M. Constructively nonpartial recursive functions. **81c:03037**

Maass, Wolfgang. ★Contributions to α - and β -recursion theory. **81k:03044**

Rummel, J. B. R -maximal Boolean algebras. **81b:03049**

Retzlaff, Allen. Simple and hyperhyper-simple vector spaces. **81g:03053**

Ruohonen, Keijo. Hilbert's tenth problem. (Swedish. English summary) **81m:10031**

03D30 Degrees and reducibilities

Daley, Robert P. On the simplification of constructions in degrees of unsolvability via computational complexity. (See **81c:68004**)

Dęstev, A. N. Reducibilities of the truth-table type in the theory of algorithms. (Russian) **81a:03045**

Denisov, S. D. Structure of the upper semilattice of recursively enumerable m -degrees and related questions. I. (Russian) **81c:03035**

Epstein, Richard L. ★Degrees of unsolvability: structure and theory. **81c:03042**

Hodes, Harold T. Jumping through the transfinite: the master code hierarchy of Turing degrees. **81m:03052**

Hughes, Charles E. (with Straight, David W.) Word problems for bidirectional, single-premise Post systems. **81h:03089**

Kechris, Alexander S. Minimal upper bounds for sequences of Δ_1^1 -degrees. **81c:03043**

Kobzev, G. N. Π -degrees of recursively enumerable Turing degrees. II. (Russian) **81k:03039**

Lachlan, A. H. Decomposition of recursively enumerable degrees. **81i:03065**

Maslova, T. M. Bounded m -reducibilities. (Russian) **81i:03066**

Nerode, Anil (with Shore, Richard A.) Reducibility orderings: theories, definability and automorphisms. **81k:03040**

Omanadze, R. Š. On reducibility to the class of recursively enumerable sets. (Russian. Georgian and English summaries) **81c:03044**

Sellman, V. L. The structure of degrees of unsolvability of index sets. (Russian) **81i:03067**

Shore, Richard A. The homogeneity conjecture. **81a:03046**

See also Nerode, Anil, **81k:03040**

Simpson, Stephen G. Sets which do not have subsets of every higher degree. **81f:03054**

Straight, David W. See Hughes, Charles E., **81h:03089**

Zdebskaja, G. V. Some properties of limiting computations. (Russian) **81i:03068**

secondary classifications:

Aanderaa, Stål (with Cohen, Daniel E.) Modular machines, the word problem for finitely presented groups and Collins' theorem. **81m:20048**

(with Cohen, Daniel E.) Modular machines and the Higman-Clapham-Valiev embedding theorem. **81m:20049**

Arslanov, M. M. Weakly recursively enumerable degrees and limiting computability. (Russian) **81i:03061**

Bennison, Victor L. Recursively enumerable complexity sequences and measure independence. **81j:03063**

Chong, C. T. Generic sets and minimal α -degrees. **81c:03037**

Rich sets. **81j:03077**

Cohen, Daniel E. See Aanderaa, Stål, **81m:20048** and **81m:20049**

Hay, Louise. Convex subsets of $2^{\mathbb{N}}$ and bounded truth-table reducibility. **81c:03031**

Maass, Wolfgang. The uniform regular set theorem in α -recursion theory. **81b:03051**

Maramba, G. B. On the sets of minimal indices of partial recursive functions. **81f:03052**

03D35 Undecidability and degrees of sets of sentences

Denef, J. The Diophantine problem for polynomial rings of positive characteristic. **81h:03090**

Lewis, Harry R. ★Unsolvable classes of quantificational formulas. **81i:03069**

Matičević, Ju. V. Algorithmic unsolvability of exponential Diophantine equations with three unknowns. (Russian) **81c:03055**

Myers, Russell W., Jr. Complexity of model-theoretic notions. **81j:03070**

Robinson, Raphael M. Undecidable tiling problems in the hyperbolic plane. **81h:03091**

Roizen, S. I. Unsolvability of the additive theory of automata isols over a unary alphabet. (Russian) **81a:03047**

Rumely, R. S. Undecidability and definability for the theory of global fields. **81m:03053**

secondary classifications:

Abramsky, Motti. The classical decision problem and partial functions. **81i:03014**

Ash, Chris (with Rosenthal, John) Some theories associated with algebraically closed fields. **81c:03030**

Börger, Egon (with Kleine-Büning, Hans) The reachability problem for Petri nets and decision problems for Skolem arithmetic. **81h:68034**

Božović, Nataša B. A note on a generalization of some undecidability results in group theory. **81g:20066**

On some classes of unrecognizable properties of groups. **81g:20067**

Danecki, R. (with Karpinski, Marek) Decidability results on plane automata searching mazes. **81d:68068**

Ehrenfeucht, Andrzej (with Rozenberg, Grzegorz) On the emptiness of the intersection of two DOS languages problem. **81h:68066**

Gurevich, Yuri (with Shelah, Saharon) Modest theory of short chains. II. **81a:03038**

Jambu-Giraudet, Michèle. Théorie des modèles de groupes d'automorphismes d'ensembles totalement ordonnés 2-homogènes. (English summary) **81f:03046**

Jones, James P. Undecidable Diophantine equations. **81k:10094**

Karpinski, Marek. See Danecki, R., **81d:68068**

Kleine-Büning, Hans. See Börger, Egon, **81h:68034**

Kobuchi, Youichi (with Seki, Shigeo) Decision problems of locally catenative property for DIL systems. **81h:68069**

Maddux, Roger. The equational theory of CA_3 is undecidable. **81c:03060**

Manaster, Alfred B. (with Rosenstein, Joseph G.) Two-dimensional partial orderings: undecidability. **81d:03047b**

Muzalewski, Michał. Restricted decision problems in some classes of algebraic systems. **81i:03010**

Nerode, Anil (with Shore, Richard A.) Reducibility orderings: theories, definability and automorphisms. **81k:03040**

Prestel, Alexander (with Szczerba, Lesław W.) Nonaxiomatizability of real general affine geometry. **81a:03013**

Romanovskii, N. S. The elementary theory of an almost polycyclic group. (Russian) **81d:03035**

Rosenstein, Joseph G. See Manaster, Alfred B., **81d:03047b**

Rosenthal, John. See Ash, Chris, **81c:03030**

Rozenberg, Grzegorz. See Ehrenfeucht, Andrzej, **81h:68066**

Salomaa, Ario. Power from power series. **81d:68108**

Sankappanavar, H. P. Decision problems: history and methods. **81a:03011**

Seki, Shigeo. See Kobuchi, Youichi, **81h:68069**

Shelah, Saharon. See Gurevich, Yuri, **81a:03038b**

Shore, Richard A. See Nerode, Anil, **81k:03040**

Szczerba, Lesław W. (with Tarski, A.) Metamathematical discussion of some affine geometries. **81a:03012**

See also Prestel, Alexander, **81a:03013**

Tarski, A. See Szczerba, Lesław W., **81a:03012**

Vallant, L. G. Negative results on counting. **81j:68056**

03D40 Word problems, etc. [See also 06B25, 08A50, 20F10.]

(Adjan, S. I.) See Word problems, **81f:03056**

(Boone, William W.) See Word problems, **81f:03056**

(Higman, Graham) See Word problems, **81f:03056**

Jockusch, Carl G., Jr. Fine degrees of word problems of cancellation semigroups. **81j:03071**

Macintyre, Angus. Combinatorial problems for skew fields. I. Analogue of Britton's lemma, and results of Adjan-Rabin type. **81h:03092**

Remesennikov, V. N. An algorithmic problem for nilpotent groups and rings. (Russian) **81g:03051**

Conference:

Decision Problems in Algebra ★Word problems. II. **81f:03056**

Decision problems in algebra ★Word problems. II. **81f:03056**

Oxford ★Word problems. II. **81f:03056**

Word problems ★Word problems. II. **81f:03056**

secondary classifications:

Aanderaa, Stål (with Cohen, Daniel E.) Modular machines, the word problem for finitely presented groups and Collins' theorem. **81m:20048**

Anshel, Michael. Vector groups and the equality problem for vector addition systems. **81c:20042**

Belegradek, O. V. Algebraic equivalents of solvability of group-theoretic algorithmic problems. (Russian) **81b:20005**

Berstel, Jean. Sur les mots sans carré définis par un morphisme. (English summary) **81j:68104**

Bokut, L. A. Decision problems for ring theory. **81k:16001**

Cohen, Daniel E. See Aanderaa, Stål, **81m:20048**

Durner, V. G. On the question of equations of free semigroups. (Russian) **81c:20040**

Ehrenfeucht, Andrzej (with Fajtlowicz, Siemion; Malitz, Jerome; Mycielski, Jan) Some problems on the universality of words in groups. **81k:08002**

Evans, Trevor. Some solvable word problems. **81k:08002**

Fajtlowicz, Siemion. See Ehrenfeucht, Andrzej; et al., **81k:20045**

Freese, Ralph. Free modular lattices. **81k:06010**

Grunevald, Fritz J. (with Segal, Daniel) The solvability of certain decision problems in arithmetic and algebra. **81b:10014**

Haimo, F. (with Singer, M. F.; Tretkoff, Marvin D.) Remarks on analytic continuation. **81j:30009**

Hughes, Charles E. (with Straight, David W.) Word problems for bidirectional, single-premise Post systems. **81h:03089**

Hurley, Bernard M. A note on the word problem for groups. **81m:20052**

Hurwitz, R. Daniel. On cyclic subgroups and the conjugacy problem. **81k:20048**

Lipschutz, Seymour. Groups with solvable conjugacy problems. **81k:20049**

Malitz, Jerome. See Ehrenfeucht, Andrzej; et al., **81k:20045**

Mycielski, Jan. See Ehrenfeucht, Andrzej; et al., **81k:20045**

Prešić, Slavica B. On quasi-algebras and the word problem. **81g:08010**

- Priese, Lutz Über ein 2-dimensionales Thue-System mit zwei Regeln und unentscheidbarem Wortproblem. (81d:03041)
- Remeslennikov, V. N. (with Romanovskii, N. S.) Algorithmic problems for solvable groups. (81h:20044)
- Romanov, V. A. Unsolvability of the problem of endomorphic reducibility in free nilpotent groups and in free rings. (Russian) (81b:20027)
- Romanovskii, N. S. See Remeslennikov, V. N., (81h:20044)
- Sarkisjan, R. A. Galois cohomology and some questions of the theory of algorithms. (Russian) (81g:12018)
- Segal, Daniel See Grunewald, Fritz J., (81b:10014)
- Simmons, Harry The word and torsion problems for commutative Thue systems. (81k:20081)
- Simon, Hans-Ulrich Word problems for groups and contextfree recognition. (81d:20024)
- Singer, M. F. See Halmos, F.; et al., (81j:30009)
- Straight, David W. See Hughes, Charles E., (81h:03069)
- Thompson, Richard J. Embeddings into finitely generated simple groups which preserve the word problem. (81k:20050)
- Tretkoff, Marvin D. See Halmos, F.; et al., (81j:30009)

03D45 Theory of numerations, effectively presented structures [See also 03C57.]

- Beljakin, N. V. Autonomous computability. (Russian) 81j:03072
- Dvornikov, S. G. Precomplete enumerated sets. (Russian) 81a:03048
- Erlinbetov, M. M. Hyperarithmetization of nonstandard predicates. (Russian) 81f:03057
- Eršov, Ju. L. ★ Теория нумераций. (Russian) [Theory of numerations] 81j:03073
- Freivalds, Rūsijs Finite identification of general recursive functions by probabilistic strategies. 81j:03074
- Gontarov, S. S. The problem of the number of nonautoequivalent constructivizations. (Russian) 81i:03070
- Goodman, Nicolas D. The nonconstructive content of sentences of arithmetic. 81e:03045
- Hecker, Hans-Dietrich Enumerationen in speziellen Standardklassen rekursiv-aufzählbarer Mengen. 81j:03075
- Kalantari, Iraj Major subspaces of recursively enumerable vector spaces. 81f:03058 (with Retzlaff, Allen) Recursive constructions in topological spaces. 81f:03059
- Automorphisms of the lattice of recursively enumerable vector spaces. 81h:03047
- Manaster, Alfred B. (with Rosenstein, Joseph G.) Two-dimensional partial orderings: recursive model theory. 81d:03047a (with Rosenstein, Joseph G.) Two-dimensional partial orderings: undecidability. 81d:03047b
- Metakides, G. (with Nerode, Anil) Recursion theory on fields and abstract dependence. 81k:03041
- Nehrfich, Werner Eine Bemerkung zur effektiven Fixpunktberechnung bei vollständigen Numerierungen. 81g:03052
- Nerode, Anil See Metakides, G., 81k:03041
- Remmel, J. B. R-maximal Boolean algebras. 81b:03049
- Recursion theory on algebraic structures with independent sets. 81j:03076
- On r.e. and co-r.e. vector spaces with nonextendible bases. 81b:03048
- Recursion theory on orderings. II. 81e:03046
- Retzlaff, Allen Simple and hyperhypersimple vector spaces. 81g:03053
- Direct summands of recursively enumerable vector spaces. 81a:03049
- See also Kalantari, Iraj, 81f:03059
- Rosenstein, Joseph G. See Manaster, Alfred B., 81d:03047a and Manaster, Alfred B., 81d:03047b
- Schmerl, James H. Recursive colorings of graphs. 81m:03054
- Solov'ov, V. L. Index sets of classes of numerations. (Russian) 81k:03042
- Several remarks on classes of recursively enumerable sets. (Russian) 81c:03036

secondary classifications:

- Baraiko, A. S. Boundary sets in the theory of enumerations. (Russian. English summary) (81j:03068)
- Deulov, S. D. Structure of the upper semilattice of recursively enumerable m-degrees and related questions. I. (Russian) (81c:03035)
- Kanda, Akira Fully effective solutions of recursive domain equations. (81e:68054)
- Korol'kov, Ju. D. Families of general recursive functions without isolated points. (Russian) (81a:03041)
- Kudabergenov, K. Z. A theory with two strongly constructible models. (Russian) (81f:03038)
- Talmanov, A. D. Topologizability of countable algebras. (Russian) (81c:08016)

03D50 Recursive equivalence types of sets and structures, isol

- Ellentuck, Erik Model-theoretic methods in the theory of isol. 81h:03093
- Diagonal methods in the theory of isol. 81i:03071

secondary classifications:

- Ellentuck, Erik Sylow subgroups of a regressive group. (81b:20006)

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- Beljakin, N. V. Autonomous computability. (Russian) (81j:03072)
- Kechris, Alexander S. Minimal upper bounds for sequences of Δ_1^1 -degrees. (81e:03043)
- Lerman, Manuel (with Schmerl, James H.) Theories with recursive models. (81g:03036)
- Schmerl, James H. See Lerman, Manuel, (81g:03036)
- Schmerl, Ulf R. A fine structure generated by reflection formulas over primitive recursive arithmetic. (81m:03070)
- Steel, John R. Forcing with tagged trees. (81c:03044)

- Stern, Jacques Évaluation du rang de Borel de certains ensembles. (English summary) (81e:03049)
- Tanaka, Hisao Recursion theory in analytical hierarchy. (81j:03069)
- Van Wesep, Robert A. Separation principles and the axiom of determinateness. (81e:03050)

03D60 Recursion theory on ordinals, admissible sets, etc.

- Abramson, Fred G. Sacks forcing does not always produce a minimal upper bound. 81g:03054
- Chong, C. T. Major subsets of α -recursively enumerable sets. 81k:03043
- Generic sets and minimal α -degrees. 81c:03037
- Rich sets. 81j:03077
- Di Paola, Robert A. The operator gap theorem in α -recursion theory. 81c:03038
- Friedman, Sy D. β -recursion theory. 81g:03055
- Post's problem without admissibility. 81g:03056
- Gostanian, Richard The next admissible ordinal. 81c:03039 (with Hrbáček, Karel) A new proof that $\omega_1^L < \omega_1^*$. 81g:03057
- Homer, Steven Two splitting theorems for beta-recursion theory. 81m:03055
- Hrbáček, Karel See Gostanian, Richard, 81g:03057
- Kechris, Alexander S. Countable ordinals and the analytical hierarchy. II. 81h:03050
- Maass, Wolfgang ★ Contributions to α - and β -recursion theory. 81h:03044
- The uniform regular set theorem in α -recursion theory. 81b:03051
- On α - and β -recursively enumerable degrees. 81m:03056

secondary classifications:

- Barwise, K. Jon Monotone quantifiers and admissible sets. (81d:03037)
- Stark, William Richard A forcing approach to strict- Π_1^1 reflection and strict- $\Pi_1^1 = \Sigma_1^1$. (81c:03025)
- Steel, John R. Forcing with tagged trees. (81c:03044)

03D65 Higher-type and set recursion theory

- Amotislavskii, V. I. A sharpened theorem on substitution for computable functionals and some of its consequences. (Russian) 81g:03058
- Gordon, Dan Minimal determining sets of locally finitely-determined functionals. 81k:03045
- Hyland, J. M. E. Filter spaces and continuous functionals. 81e:03047
- Kechris, Alexander S. Spector second order classes and reflection. 81i:03072
- Longo, Giuseppe Recursiveness in higher types: an introduction to the characterizations of Eršov and Hyland. (Italian. English summary) 81i:03073
- Normann, Dag Recursion in 2E and a splitting theorem. 81h:03052
- A note on reflection. 81k:03046
- Poljakov, E. A. On the theory of recursive functionals and effective operations. (Russian) 81j:03078

secondary classifications:

- Beljakin, N. V. Autonomous computability. (Russian) (81j:03072)
- Kechris, Alexander S. Countable ordinals and the analytical hierarchy. II. (81h:03050)

03D70 Inductive definability

- Apt, K. R. Inductive definitions, models of comprehension and invariant definability. 81c:03048
- Barwise, K. Jon (with Moschovakis, Yiannis N.) Global inductive definability. 81g:03059
- Cutland, Nigel On nonmonotone Σ_1^1 inductive definitions. 81m:03057
- Moschovakis, Yiannis N. See Barwise, K. Jon, 81g:03059

secondary classifications:

- Barwise, K. Jon Monotone quantifiers and admissible sets. (81d:03037)
- Kechris, Alexander S. On Spector classes. (81b:03053)
- Moschovakis, Yiannis N. Inductive scales on inductive sets. (81m:03059)
- Schlipf, John Stewart Recursively saturated models of set theory. (81h:03101)

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- Feferman, Solomon Recursion theory and set theory: a marriage of convenience. 81i:03074
- Kechris, Alexander S. On Spector classes. 81h:03053
- Payne, Thomas H. General computability. 81k:03047
- Petrov, Veselin P. (with Skordev, Dimit'r G.) Combinatorial structures. (Russian) 81j:03079
- Skordev, Dimit'r G. See Petrov, Veselin P., 81j:03079
- Stoltenberg-Hansen, Viggo Finite injury arguments in infinite computation theories. 81h:03094

secondary classifications:

- Normann, Dag A note on reflection. (81k:03046)
- Remmel, J. B. Recursion theory on orderings. II. (81e:03046)

03D80 Applications

- Bergstra, Jan (with Tiuryn, Jerzy) Implicit definability of algebraic structures by means of program properties (extended abstract). 81d:03048
- Tiuryn, Jerzy See Bergstra, Jan, 81d:03048

secondary classifications:

- Manevitz, Larry (with Stavi, Jonathan) Δ_1^0 operators and alternating sentences in arithmetic. (81a:03064)
 Myers, Russell W., Jr. Complexity of model-theoretic notions. (81j:03070)
 Pour-El, Marina Boykan Computer science and recursion theory. (81d:68003)
 Raslova, Helena Logic of complex algorithms. (81d:68047)
 Stavi, Jonathan See Manevitz, Larry, (81a:03064)
 Weyuker, Elaine J. The applicability of program schema results to programs. (81d:68026)

03D99 None of the above, but in this section

- Bergstra, Jan Effective transformations on probabilistic data. 81d:03049
 Skordev, Dimit'r G. Algebraic generalization of a result of Böhm and Jacopini. (Russian) 81d:03050

03Exx Set theory [See also 04-XX.]

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- Klaus, Dieter ★Mengenlehre. (German) [Set theory] (81b:04001)

03E05 Combinatorial set theory

- Galvin, Fred Chain conditions and products. 81m:03058
 Węglorz, Bogdan Some σ -fields of subsets of reals. 81i:03075

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- Burgess, John P. On a set-mapping problem of Hajnal and Máté. (81c:03046)
 Fleissner, William G. Applications of stationary sets in topology. (81b:54007)
 Grzegorek, E. On a paper by Karel Prikry concerning Ulam's problem on families of measures [Monatsh. Math. 81 (1976), no. 1, 41-57; MR 53 #2689]. (81i:04005)
 Heule, J. M. Researches into the world of $\kappa \rightarrow \kappa^*$. (81c:03047)
 Malyhin, V. I. Ramsey spaces. (Russian) (81a:54006)
 Shelah, Saharon Independence of strong partition relation for small cardinals, and the free-subset problem. (81k:03050)

03E10 Ordinal and cardinal numbers

- Hickman, John L. Λ -minimal lattices. 81j:03080

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- Charretton, Christine Type d'ordre des ordinaux de modèles non dénombrables de la théorie des ensembles. (81d:03036)
 Gitik, M. All uncountable cardinals can be singular. (81h:03096)
 McBeth, Rod Fundamental sequences for exponential polynomials. (81f:04004)

03E15 Descriptive set theory

- Bukovský, Lev Any partition into Lebesgue measure zero sets produces a nonmeasurable set. (Russian summary) 81h:03095
 Magidor, Menachem Precipitous ideals and Σ_1^1 sets. 81k:03048
 Miller, Douglas E. The invariant Π_1^0 separation principle. 81b:03054
 Moschovakis, Yiannis N. Inductive scales on inductive sets. 81m:03059
 Silver, Jack H. Counting the number of equivalence classes of Borel and coanalytic equivalence relations. 81d:03051
 Stern, Jacques Évaluation du rang de Borel de certains ensembles. (English summary) 81c:03049
 Effective partitions of the real line into Borel sets of bounded rank. 81d:03052
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secondary classifications:

- Burgess, John P. A selection theorem for group actions. (81a:54041)
 Gostanian, Richard (with Hrbáček, Karel) Propositional extensions of $L_{\omega_1, \omega}$. (81j:03057)
 Hansell, R. W. Some consequences of $(V=L)$ in the theory of analytic sets. (81j:54058)
 Hrbáček, Karel See Gostanian, Richard, (81j:03057)
 Kechris, Alexander S. On Spector classes. (81b:03053)
 Louveau, Alain A separation theorem for Σ_1^1 sets. (81j:04001)
 Mauldin, R. Daniel Some selection theorems and problems. (81g:28013)
 Steel, John R. On Vaught's conjecture. (81b:03036)

03E20 Other classical set theory

03E25 Axiom of choice and related propositions

- Christian, Curt Starkes und überstarkes Auswahlaxiom. (English summary) 81c:03040
 Auswahlaxiomatische Quantorenvertauschung. (English summary) 81i:03076

03E30 Axiomatics of classical set theory and its fragments

- Chauvin, André Theory of objects and set theory: introduction and semantics. 81c:03041
 Hamazawa, Masazumi On a problem about Skolem's paradox of Takeuti's version. 81d:03053
 Kührich, Martin The Boolean algebra of predicates. 81g:03060
 Teleč, Peter Sequenzen und strukturierte Zeichenreihen. 81j:03081

secondary classifications:

- Friedrichsdorf, Ulf Zur Mengenlehre über Klassen. (81b:03056)
 Ratajczyk, Zygmunt On sentences provable in impredicative extensions of theories. (81g:03062)

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- Anapolitanos, D. A. Automorphisms of finite order. 81b:03055
 Baumgartner, James E. (with Laver, Richard) Iterated perfect-set forcing. 81a:03050
 Chains and antichains in $\mathcal{P}(\omega)$. 81d:03054
 Fleissner, William G. (with Miller, Arnold W.) On Q sets. 81i:03077
 Friedman, Harvey On the naturalness of definable operations. 81d:03055
 Friedrichsdorf, Ulf Zur Mengenlehre über Klassen. 81b:03056
 Gitik, M. All uncountable cardinals can be singular. 81h:03096
 Hickman, John L. On a remark by Sageev. 81c:03042
 Jech, Thomas J. (with Magidor, Menachem; Mitchell, W.; Prikry, Karel) Precipitous ideals. 81h:03097
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 Mathias, A. R. D. Surrealist landscape with figures (a survey of recent results in set theory). 81b:03057
 Miller, Arnold W. See Fleissner, William G., 81i:03077
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 Prikry, Karel See Jech, Thomas J.; et al., 81h:03097
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 Tall, Franklin D. Some applications of small cardinal collapse in topology. 81a:03061
 Väinänen, Jouko The Hanf number of $L_{\omega_1, \omega}$. 81f:03061

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- Ajtai, M. Isomorphism and higher order equivalence. (81j:03052)
 Blass, Andreas Injectivity, projectivity, and the axiom of choice. (81j:04004)
 Burgess, John P. On the Hanf number of Souslin logic. (81c:03026)
 Devlin, Keith J. (with Shelah, Saharon) A note on the normal Moore space conjecture. (81d:54022)
 Dubiel, Małgorzata Generalized quantifiers in models of set theory. (81j:03057)
 Eklof, Paul C. ★Set-theoretic methods in homological algebra and abelian groups. (81j:20004)
 Esterle, Jean Propriétés universelles de certains semi-groupes et algèbres de convolution. (81c:46036)
 Friedman, Harvey On definability of nonmeasurable sets. (81m:03062)
 Hansell, R. W. Some consequences of $(V=L)$ in the theory of analytic sets. (81j:54058)
 Harazisvili, A. B. ★Некоторые вопросы функционального анализа и их применения. (Russian) [Some questions of functional analysis and their applications] (81k:28003)
 Hickman, John L. Λ -minimal lattices. (81j:03080)
 Malyhin, V. I. Ramsey spaces. (Russian) (81a:54006)
 Nyikos, Peter J. A provisional solution to the normal Moore space problem. (81k:54044)
 Shelah, Saharon See Devlin, Keith J., (81d:54022)
 Weese, Martin Mad families and ultrafilters. (81i:54004)

03E40 Other aspects of forcing and Boolean-valued models

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 Steel, John R. Forcing with tagged trees. 81c:03044
 Takeuti, Gaisi Boolean valued analysis. 81c:03045

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- Abian, Alexander k -inductive Boolean algebras and the existence of special ultrafilters. (81d:06017)
 Abramson, Fred G. Sacks forcing does not always produce a minimal upper bound. (81g:03054)
 Baumgartner, James E. (with Laver, Richard) Iterated perfect-set forcing. (81a:03050)
 Bukovský, Lev Any partition into Lebesgue measure zero sets produces a nonmeasurable set. (Russian summary) (81h:03095)
 Laver, Richard See Baumgartner, James E., (81a:03050)
 Roitman, J. Adding a random or a Cohen real: topological consequences and the effect on Martin's axiom. (81h:03098)
 Stark, William Richard A forcing approach to strict- Π_1^1 reflection and strict- $\Pi_1^1 = \Sigma_1^1$. (81c:03025)
 Väinänen, Jouko Boolean-valued models and generalized quantifiers. (81m:03049)

03E45 Constructibility, ordinal definability, and related notions

- Beller, Aaron (with Litman, Ami) A strengthening of Jensen's \square principles. 81k:03051
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 Friedman, Harvey On definability of nonmeasurable sets. 81m:03062

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Friedman, Sy D. β -recursion theory. (81g:03055)

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(with Hrbáček, Karel) A new proof that $\pi_1^1 < \sigma_1^1$. (81g:03057)

Hodes, Harold T. Jumping through the transfinite: the master code hierarchy of Turing degrees. (81m:03052)

Hrbáček, Karel See Gostanian, Richard, (81g:03057)

Huber, Martin On Cartesian powers of a rational group. (81i:20068)

Kotlarski, Henryk On Skolem ultrapowers and their nonstandard variant. (81m:03040)

Malyhin, V. I. Extremely disconnected topological groups. (Russian) (81c:54007)

03E47 Other notions of set-theoretic definability

03E50 Continuum hypothesis and Martin's axiom [See also 54A25.]

Felgner, Ulrich Bericht über die Cantorsche Kontinuums-Hypothese. 81f:01050b

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(Arhangel'skii, A. V.) See Gruenhage, Gary, (81k:54021)

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Burgess, John P. On the Hanf number of Souslin logic. (81c:03026)

Choksi, J. R. (with Fremlin, David H.) Completion regular measures on product spaces. (81m:28004)

Čigogidze, A. Č. Perfect normality and Martin's axiom. (Russian. Georgian and English summaries) (81e:54032)

van Douwen, Eric K. (with Wage, Michael L.) Small subsets of first countable spaces. (81i:54015)

(with van Mill, Jan) Subspaces of basically disconnected spaces or quotients of countably complete Boolean algebras. (81h:54038)

Eklof, Paul C. ★Set-theoretic methods in homological algebra and abelian groups. (81j:20004)

Fleissner, William G. Martin's axiom implies that de Caux's space is countably metacompact. (81j:54031)

Fremlin, David H. See Choksi, J. R., (81m:28004)

Gruenhage, Gary Paracompactness and subparacompactness in perfectly normal locally bicompact spaces. (Russian) (81k:54021)

van Mill, Jan See van Douwen, Eric K., (81h:54038)

Rančin, D. V. Hereditarily infinite-dimensional spaces. (Russian) (81g:54038)

Stark, William Richard Martin's axiom in the model theory of L_A . (81a:03036)

Szentmiklóssy, Z. S -spaces and L -spaces under Martin's axiom. (81k:54032)

Wage, Michael L. See van Douwen, Eric K., (81f:54015)

Weese, Martin Mad families and its classification. (81d:06020)

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Apter, Arthur W. On the least strongly compact cardinal. 81h:03099

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Ketonen, Jussi Some combinatorial properties of ultrafilters. 81h:03080

Spector, Mitchell A measurable cardinal with a nonwellfounded ultrapower. 81k:03053

Tall, Franklin D. Large cardinals for topologists. 81h:03100

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secondary classifications:

Armstrong, Thomas E. (with Prikrý, Karel) κ -finiteness and κ -additivity of measures on sets and left invariant measures on discrete groups. (81k:28014)

Jech, Thomas J. (with Magidor, Menachem; Mitchell, W.; Prikrý, Karel) Precipitous ideals. (81h:03097)

Magidor, Menachem Precipitous ideals and Σ_1^1 sets. (81k:03048)

See also Jech, Thomas J.; et al., (81h:03097)

Martin, Donald A. (with Mitchell, W.) On the ultrafilter of closed, unbounded sets. (81a:03051)

Mitchell, W. See Martin, Donald A., (81a:03051) and Jech, Thomas J.; et al., (81h:03097)

Prikrý, Karel See Jech, Thomas J.; et al., (81h:03097) and Armstrong, Thomas E., (81k:28014)

Shelah, Saharon Weakly compact cardinals: a combinatorial proof. (81i:04009)

Talano, Rodolfo A topological characterization of a class of cardinals. (81j:54035)

A topological characterization of a class of cardinals. (81h:54005)

Williams, Scott W. Boxes of compact ordinals. (81f:54002)

03E60 Determinacy and related principles which contradict the axiom of choice

secondary classifications:

Balazsov, B. S. A property of Borel sets. (Russian) (81k:04001)

Henle, J. M. Researches into the world of $\kappa \rightarrow (\kappa)^{\aleph_1}$. (81c:03047)

Martin, Donald A. (with Mitchell, W.) On the ultrafilter of closed, unbounded sets. (81a:03051)

Mitchell, W. See Martin, Donald A., (81a:03051)

Spector, Mitchell A measurable cardinal with a nonwellfounded ultrapower. (81k:03053)

Tanaka, Hisao Recursion theory in analytical hierarchy. (81j:03069)

Van Wesep, Robert A. Separation principles and the axiom of determinateness. (81e:03050)

03E65 Other hypotheses and axioms

secondary classifications:

Benda, Miroslav On strong axioms of induction in set theory and arithmetic. (81j:03087)

v. Rimscha, Michael Mengentheoretische Modelle des λ K-Kalküls. (81g:03012)

03E70 Nonclassical and second-order set theories

Čuda, Karel (with Vopěnka, Petr) Real and imaginary classes in the alternative set theory. 81i:03084

Hinnion, Roland Contraction de structures et application à NFU (les "New Foundations" de Quine avec extensionnalité pour les ensembles non vides). Définition du "degré de nonextensionnalité" d'une relation quelconque. (English summary) 81i:03082

Kawal, Toru An axiom system for nonstandard set theory. 81d:03056

Lejewski, Czesław Postscript: "A note concerning the notion of mereological class" [Notre Dame J. Formal Logic 19 (1978), no. 2, 251-263; MR 58 #16292]. 81j:03062

Mlček, J. Valuations of structures. 81f:03063

Approximations of σ -classes and π -classes. 81f:03064

Ratajczyk, Zygmunt On sentences provable in impredicative extensions of theories. 81g:03062

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Sochor, Antonín Metamathematics of the alternative set theory. I. 81f:03066

(with Vopěnka, Petr) Endomorphic universes and their standard extensions. 81i:03083

(with Vopěnka, Petr) Revelments. 81f:03065

Vencovská, A. A method for constructing some endomorphic universes. 81i:03085

Vopěnka, Petr The lattice of indiscernibility equivalences. 81f:03062

See also Sochor, Antonín, 81f:03065; Sochor, Antonín, 81i:03083 and Čuda, Karel, 81i:03084

White, Richard B. The consistency of the axiom of comprehension in the infinite-valued predicate logic of Łukasiewicz. 81h:03059

secondary classifications:

Birnbaum, Léon n -polar logic of classes. (81i:03027)

Brady, Ross T. A theory of classes and individuals based on a 3-valued significance logic. (81i:03028)

Bunder, M. W. The consistency of a higher order predicate calculus and set theory based on combinatory logic. (81h:03106)

Hahajanian, V. H. The consistency of intuitionistic set theory with formal mathematical analysis. (Russian) (81h:03109)

Hrbáček, Karel Nonstandard set theory. (81c:03055)

Liu, Shih Chao A proof-theoretic approach to nonstandard analysis with emphasis on distinguishing between constructive and nonconstructive results. (81m:03076)

Reinhardt, William N. Satisfaction definitions and axioms of infinity in a theory of properties with necessity operator. (81j:03034)

Stout, Lawrence Neff Laminations, or how to build a quantum-logic-valued model of set theory. (81i:03099)

Welsh, Paul J., Jr. Primitivity in mereology. I. (81e:03027a)

Primitivity in mereology. II. (81e:03027b)

03E72 Fuzzy sets [See also 54A40, 94D05.]

Arigoni, Anio O. Mathematical developments arising from "semantical implication" and the evaluation of membership characteristic functions. 81j:03083

Baldwin, J. F. (with Guild, N. C. F.) On the satisfaction of a fuzzy relation by a set of inputs. 81h:03102

(with Guild, N. C. F.; Prade, Henri M.) Comments on the "fuzzy max" operator of Dubois and Prade. 81h:03103

Buhăescu, T. T. p -convex fuzzy sets. (Romanian and French summaries) 81k:03104

(Chang, Shi Kuo) See Fuzzy sets, 81h:03105

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Delgado Calvo-Flores, Miguel A new definition of fuzzy mapping. (Spanish. English summary) 81f:03067

Dubois, Didier (with Prade, Henri M.) Outline of fuzzy set theory. 81a:03052

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Egorov, Ju. A. Convergence of measures in problems of choice of fuzzy hypotheses. (Russian) 81k:03054

Gotwald, Siegfried A note on measures of fuzziness. (Russian and German summaries) 81c:03048

Fuzzy uniqueness of fuzzy mappings. 81a:03053

Grattan-Guinness, Ivor Forays into the metatheory of fuzzy set theory. 81j:03084

Guild, N. C. F. See Baldwin, J. F., 81h:03102 and 81h:03103

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- Hidal, Ellen Possibilistically dependent variables and a general theory of fuzzy sets. 81b:03060
- Kandel, Abraham Fuzzy dynamical systems and the nature of their solutions. 81k:03055
- Klement, Erich Peter Extension of probability measures to fuzzy measures and their characterization. (See 81m:03067)
- See also Proceedings: International Seminar on Fuzzy Set Theory. 81m:03067
- Li, Chu Lin (with Yu, Hong Zu) Some problems concerning the solution of fuzzy equations. (Chinese. English summary) 81m:03064
- Mizumoto, Masaharu (with Tanaka, Kokiichi) Some properties of fuzzy numbers. 81e:03054
- Novák, Vilém Assessing of weights of parameters using the calculus of fuzzy sets. (Czech. English summary) 81d:03057
- Prade, Henri M. Nomenclature of fuzzy measures. (See 81m:03067)
- See also Dubois, Didier, 81a:03052; Baldwin, J. F.; et al., 81b:03103 and Dubois, Didier, 81m:03063
- Ragade, Ramnohan K. (with Gupta, Madan M.) Fuzzy set theory and applications: a synthesis. 81i:03086
- Riley, Serge Structures floues et algèbres de Post. 81k:03056
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Babeu, A. A. (with Solov'ev, S. V.) A coherence theorem for canonical morphisms in Cartesian closed categories. (Russian. English summary) 81g:03074

Funahashi, Sakae See Oshiba, Takeshi; et al., 81j:03093

Jäger, Gerhard Beweistheorie von KPN. 81h:03117

Kreisel, Georg Some uses of proof theory for finding computer programs. 81h:03118
See also Zinov'ev, A. A., 81i:03098

Nagata, Shiro See Oshiba, Takeshi; et al., 81j:03093

Oshiba, Takeshi (with Nagata, Shiro; Funahashi, Sakae) A method for obtaining proof figures of valid formulas in the first order predicate calculus. 81j:03093

Prawitz, Dag Proofs and the meaning and completeness of the logical constants. 81g:03075

Seely, R. A. G. Weak adjointness in proof theory. 81b:03063

Solov'ev, S. V. See Babeu, A. A., 81g:03074

Zašev, I. A. A hierarchical semantic system with a deductive interpretation of the second-order universal quantifier. (Russian) 81i:03097

Zinov'ev, A. A. Complete (rigorous) induction & Fermat's great theorem. 81i:03098

secondary classifications:

De Lillo, Nicholas J. Models of an extension of the theory ORD. (81f:03043)

Hyland, J. M. E. Filter spaces and continuous functionals. (81e:03047)

Suvorov, P. Ju. Representation of proofs by colored graphs and Hadwiger's conjecture. (Russian. English summary) (81g:05060)

Wasilewska, Anita A constructive proof of Craig's interpolation lemma for m -valued logic. (81c:03019)

03Gxx Algebraic logic

secondary classifications:

Rautenberg, Wolfgang ★Klassische und nichtklassische Aussagenlogik. (German)
[Classical and nonclassical propositional logic] (81i:03002)

03G05 Boolean algebras [See also 06Exx.]

- Protor, A. B. Complete extensions of compositions of partial functions. (Russian) 81j:03094
- Koen, R. I. (with Manev, K. N.) Algebraic properties of the universal functions of the algebra of logic. (Russian) 81c:03053
- Subfunctions and invariant classes of functions of the algebra of logic. (Russian) 81j:03095
- Krnić, Luka Generating systems and bases for F_2 . (Serbo-Croatian. English summary) 81f:03072
- Kuracov, P. A. A method of analysis for consistency in the description of a combinative scheme. (Russian) 81h:03119
- Malov, K. M. On the algebraic theory of discrete systems. (Russian) 81h:03120
- Manev, K. N. See Koen, R. I., 81c:03053
- Schwartz, Dietrich Kohärente Systeme von Booleschen Algebren. 81h:03121
- Valchenko, V. P. Representation of functions of the algebra of logic by compositions of partial functions. (Russian) 81j:03096
- Vujolović, Slobodan T. O. the limits of the families of Lindenbaum algebras. 81f:03073

secondary classifications:

- Argyros, S. A decomposition of complete Boolean algebras. (81m:06034)
- Aroča, H. L. Minimization of a function of the algebra of logic by investigation of lower units and upper zeros. (Russian) (81h:04049)
- Barthel, Dieter Minimierung schaltalgebraischer Ausdrücke durch Auswahl von Primkonjunktionen ohne Rückgriff auf die kanonische alternative Normalform. (English and Russian summaries) (81c:04032)
- Bozjan, Š. E. (with Torojan, B. E.) Investigation of functions of the algebra of logic in terms of the activity of a set of variables. (Russian. Armenian and English summaries) (81h:04063)
- Breuer, Melvin A. See Levendel, Ytzhak, (81h:04067) and Levendel, Ytzhak, (81j:04045)
- Čimev, K. N. On strongly essential variables of functions of six arguments. (Bulgarian. Russian and French summaries) (81h:04076)
- Dywan, Zdzisław Decidability of structural completeness for strongly finite propositional calculi. (81h:03033)
- Gronau, Hans-Dietrich O. F. Recognition of monotone functions. (81g:05007)
- Hay, Louise Convex subsets of 2^n and bounded truth-table reducibility. (81c:03031)
- Hrapčenko, V. M. The relation between complexity and depth of formulas. (Russian) (81d:04035)
- Hurst, Stanley L. ★The logical processing of digital signals. (81c:04044)
- Kerntopf, Paweł On finding roots on finite-valued functions. (81h:04032)
- Klaus, Dieter Partielle Boolesche Algebren in der Intervallmathematik. II. (81f:06014a)
- Partielle Boolesche Algebren in der Intervallmathematik. II. (81f:06014b)
- Kühnrich, Martin The Boolean algebra of predicates. (81g:03060)
- Labore, Jean-Marie À propos d'un problème d'algèbre de Boole. (English summary) (81h:05066)
- Sur le cardinal maximum de la base complète d'une fonction booléenne, en fonction du nombre de conjonctions de l'une de ses formes normales. (81m:04035)
- Levendel, Ytzhak (with Breuer, Melvin A.) Mathematical properties of Boolean transformations. (81h:04067)
- (with Breuer, Melvin A.) Vector representation of switching and three-valued functions. (81j:04045)
- Mead, J. (with Nelson, G. C.) Model companions and k -model completeness for the complete theories of Boolean algebras. (81f:03047)
- Melter, R. A. (with Rudeanu, Sergiu) Generalized inverses of Boolean functions. (81m:06036)
- Mirolli, Massimo Duality for Boolean operators. (Italian) (81f:06016)
- Nelson, G. C. See Mead, J., (81f:03047)
- Remanov, A. M. The shortest disjunctive normal forms for products of Boolean functions. (Russian) (81h:04071)
- Rubis, Matatyahu (with Shelah, Saharon) On the elementary equivalence of automorphism groups of Boolean algebras; downward Skolem-Löwenheim theorems and compactness of related quantifiers. (81h:03078)
- Rudeanu, Sergiu See Melter, R. A., (81m:06036)
- Sack, Ira Howard Prefilters over an arbitrary Boolean algebra. (81h:06008)
- Shelah, Saharon See Rubis, Matatyahu, (81h:03078)
- Thury, Jerry Continuity problems in the power-set algebra of infinite trees. (81c:68053)
- Todorčević, Stevo Rigid Boolean algebras. (81j:06017)
- Torojan, B. E. See Bozjan, Š. E., (81h:04063)
- Vaifrey, Ju. L. Massive classes of dense Boolean functions. I. (Russian) (81c:04046)
- Verdú i Solans, Ventura Distributive and Boolean logic. (Catalan. English summary) (81d:03058)
- Zelichenko, A. I. The correspondence of monotone Boolean functions to systems of linear inequalities. (Russian) (81h:04075)

03G10 Lattices and related structures [See also 06Bxx.]

- Herrmann, Robert A. Nonstandard implication algebras. 81f:03074
- Verdú i Solans, Ventura Distributive and Boolean logic. (Catalan. English summary) 81d:03058

secondary classifications:

- Bočvar, D. A. (with Šokurov, V. V.) Behavior of the likelihood functional for "tertium non datur" in certain sequences of logical matrices. (Russian) (81j:03043)
- Cornish, William H. An ordered sheaf representation of subresiduated lattices. (81m:06025)
- Day, Brian J. Locale geometry. (81h:52002)
- Georgacarakos, G. N. Orthomodularity and relevance. (81c:03014)
- Equationally definable implication algebras for orthomodular lattices. (81h:06008)
- Šokurov, V. V. See Bočvar, D. A., (81j:03043)

03G12 Quantum logic [See also 81B10.]

- Dvurečenskij, Anatolij Signed states on a logic. (Russian summary) 81d:03059
- van Fraassen, Bas C. Hidden variables and the modal interpretation of quantum theory. 81c:03059
- Mittelstaedt, Peter The modal logic of quantum logic. 81d:03060
- Nishimura, Hirokazu Sequential method in quantum logic. 81h:03122
- Stachow, E. W. Logical foundation of quantum mechanics. 81g:03076
- Stout, Lawrence Neff Laminations, or how to build a quantum-logic-valued model of set theory. 81i:03099

secondary classifications:

- Aerts, Dirk (with Daubechies, Ingrid) About the structure-preserving maps of a quantum mechanical propositional system. (81h:81010)
- Čilić, V. I. Uniformities and estimates on logics. (Russian) (81j:81005)
- Daubechies, Ingrid See Aerts, Dirk, (81h:81010)
- Dvurečenskij, Anatolij Laws of large numbers and the central limit theorems on a logic. (Russian summary) (81a:81011)
- (with Riečan, Beloslav) On the individual ergodic theorem on a logic. (81g:28024)
- Finkelstein, David Process philosophy and quantum dynamics. (81d:81006)
- Frescura, F. A. M. (with Hiley, B. J.) The implicate order, algebras, and the spinor. (81d:81007)
- Garola, C. Propositions and orthocomplementation in quantum logic. (81f:81005)
- Good, I. J. The impossibility of complete mutual observation. (81h:81007)
- Guz, Wawrzyniec Pure operations and the covering law. (81f:81010)
- Conditional probability in quantum axiomatics. (81k:81006)
- Event-phase-space structure: an alternative to quantum logic. (81d:81008)
- Healey, Richard Quantum realism: naïveté is no excuse. (81f:81006)
- Hellman, Geoffrey A probabilistic version of the Kochen-Specker no-hidden-variable proof. (81g:81003)
- Hiley, B. J. See Frescura, F. A. M., (81d:81007)
- (Hooker, C. A.) See Logico-algebraic approach to quantum mechanics, (81i:81003a) and Logico-algebraic approach to quantum mechanics, (81i:81003b)
- Lahti, Pekka J. On the expectation value of an observable in quantum logic. (Russian summary) (81i:81007)
- Rehder, Wulf When do projections commute? (81h:81013)
- Riečan, Beloslav See Dvurečenskij, Anatolij, (81g:28024)
- Sharma, C. S. Mackey's eighth axiom and quantum logics. (81k:81010)
- Stachow, E. W. An operational approach to quantum probability. (81a:81012)
- Logico-algebraic approach to quantum mechanics ★The logico-algebraic approach to quantum mechanics. Vol. I. (81i:81003a)
- ★The logico-algebraic approach to quantum mechanics. Vol. II. (81i:81003b)
- Quantum mechanics ★The logico-algebraic approach to quantum mechanics. Vol. I. (81i:81003a)
- ★The logico-algebraic approach to quantum mechanics. Vol. II. (81i:81003b)

03G15 Cylindric and polyadic algebras; relation algebras

- Georgescu, George A representation theorem for tense polyadic algebras. 81m:03073
- Maddux, Roger The equational theory of CA_3 is undecidable. 81c:03060
- Pinter, Charles C. Topological duality theory in algebraic logic. 81g:03077
- Schwartz, Dietrich Cylindric algebras with filter quantifiers. 81g:03078

secondary classifications:

- Handschel, G. Eine graphische Veranschaulichung der logischen Operationen. (81j:03001)
- Kuhn, Steven T. Quantifiers as modal operators. (81k:03021)

03G20 Łukasiewicz and Post algebras

- Kaluźnin, L. A. See Pöschel, Reinhard, 81f:03075
- Lacava, Francesco Some properties of L -algebras and existentially closed L -algebras. (Italian. English summary) 81a:03062
- Mačev, I. A. Homomorphisms of totally bounded extensions of iterative Post algebras. (Russian) 81d:03061
- Muzio, J. C. (with Wesselkamper, T. C.) Generalized finite Post algebras. 81g:03079
- Perrine, Serge A new aspect of some Post algebras. 81i:03100
- Pöschel, Reinhard (with Kaluźnin, L. A.) ★Funktionen- und Relationenalgebren. (German) [Function and relation algebras] 81f:03075
- Schwartz, Dietrich Algebra der partiellen Mengen. 81i:03101
- Wesselkamper, T. C. See Muzio, J. C., 81g:03079

secondary classifications:

- Beazer, R. (with Macnab, D. S.) Modal extensions of Heyting algebras. (81d:06013)
- Cignoli, Roberto Coproducts in the categories of Kleene and three-valued Łukasiewicz algebras. (81d:06010)

Filipini, Alexandra Representation of Łukasiewicz algebras by means of ordered Stone spaces. (81c:06013)

Hurris, Luisa On complemented elements in Łukasiewicz algebras. (81k:06013)

Macnab, D. S. See **Beazer, R.**, (81d:06013)

Manikymba, P. See **Swamy, U. Maddana**, (81h:06009)

Rasiowa, Helena Algorithmic logic. Multiple-valued extensions. (81j:08045)

Ribeyre, Serge Structures floues et algèbres de Post. (81k:03056)

Sokolnicki, Krzysztof Characterizations of certain algebraic theories. (Russian summary) (81e:18009)

Swamy, U. Maddana (with **Manikymba, P.**) Representation of certain classes of distributive lattices by sections of sheaves. (81h:06009)

03G25 Other algebras related to logic

Enakli, L. L. On the variety of Grzegorczyk algebras. (Russian) (81j:03097)

Horn, Alfred Free S5 algebras. (81e:03061)

Iseki, Kiyoshi On BCK-algebras with condition (S). (81c:03054)

On some problems on BCK-algebras. (81d:03062)

Ituriz, Luisa Two typical representation theorems for symmetrical Heyting algebras of order n . (81f:03076)

Kauffman, Louis H. De Morgan algebras—completeness and recursion. (81d:03063)

Marcenkov, S. S. Closed classes of self-dual functions of many-valued logic. (Russian) (81d:03064)

Montagna, Franco On the algebraization of a Feferman's predicate. (81h:03123)

On the diagonalizable algebra of Peano arithmetic. (Italian summary) (81d:03065)

Špíř, Jan Subalgebras and sublogics of σ -logics. (Russian summary) (81g:03080)

secondary classifications:

Acuña-Ortega, O. (with **Linton, F. E. J.**) Finiteness and decidability. (81f:18016a)

Beazer, R. (with **Macnab, D. S.**) Modal extensions of Heyting algebras. (81d:06013)

Subdirectly irreducible double Heyting algebras. (81d:06015)

Cornish, William H. 3-permutability and quasicommutative BCK-algebras. (81m:06030)

Lattice-ordered groups and BCK-algebras. (81m:06040)

Rings and implicative BCK-algebras. (81m:06031)

A multiplier approach to implicative BCK-algebras. (81m:06032)

Deeba, Elias Y. A characterization of complete BCK-algebras. (81e:06020)

Finitely generated ideals of a BCK-algebra. (81e:06021)

Ellerman, David P. (with **Rota, Gian-Carlo**) A measure-theoretic approach to logical quantification. (81c:03027)

Finn, Viktor (with **Grigolija, R. Š.**) Bochvar's algebras and corresponding propositional calculi. (81f:03031)

Grigolija, R. Š. See **Finn, Viktor**, (81f:03031)

Grziszewski, Andrzej On some problem on BCK-algebras. (81k:06015)

Iseki, Kiyoshi Some results on positive implicative BCK-algebras with condition (S). (81g:06008)

Remarks on contrapositionally complemented BCK-algebras (NB BCK-algebras). (81h:06010a)

On BCK-algebras with a unary operation. (81h:06010b)

On finite BCK-algebras. (81g:06009)

On finite BCK-algebras. (81k:06016)

On NBN-structures on BCK-algebras. (81k:06017)

On BCI-algebras. (81k:06018a)

On BCI-algebras with condition (S). (81k:06018b)

On the existence of quasicommutative BCI-algebras. (81k:06018c)

A variety of BCI-algebras. (81k:06018d)

A problem of BCI-algebras. (81k:06018e)

Some examples of BCI-algebras. (81k:06018f)

A characterization of implicative algebras by NB-structures. (81k:06019)

On the determination of all NB-structures on BCK-algebras. (81f:06015)

Jablonskii, S. V. Some results in the theory of functional systems. (Russian) (81j:03038)

Kirk, Robert E. A characterization of the classes of finite tree frames which are adequate for the intuitionistic logic. (81m:03014)

Koen, R. I. (with **Manev, K. N.**) Algebraic properties of the universal functions of the algebra of logic. (Russian) (81c:03053)

Köhler, Peter A subdirectly irreducible double Heyting algebra which is not simple. (81d:06014)

Linton, F. E. J. See **Acuña-Ortega, O.**, (81f:18016a)

Macnab, D. S. See **Beazer, R.**, (81d:06013)

Manev, K. N. See **Koen, R. I.**, (81c:03053)

Palasiński, Marek (with **Wozniakowska, Barbara**) On congruence lattices of commutative BCK-algebras. (81g:06010)

Some remarks on BCK-algebras. (81j:06015)

Some remarks on BCK-algebras. (81h:06011)

Plá Carrera, José A formalization of the Lewis system S1 without rules of substitution. (81a:03019)

Rota, Gian-Carlo See **Ellerman, David P.**, (81c:03027)

Schmidt, Günther ★Programme als partielle Graphen. (German) [Programs as partial graphs] (81f:68027)

Šum, A. A. Propositional semantic systems. (Russian) (81h:03057)

Traczyk, Tadeusz On the variety of bounded commutative BCK-algebras. (81a:06015)

Tsinakis, Constantine Brouwerian semilattices determined by their endomorphism semigroups. (81h:06001)

Wozniakowska, Barbara On a problem on BCK-algebras. (81k:06022)

See also **Palasiński, Marek**, (81g:06010)

Wraith, Gavin C. Complexification of variable fields. (81f:18022)

Yutani, Hiroshi An axiom system for a BCK-algebra with the condition (S). (81g:06011)

03G30 Categorical logic, topoi [See also 18B25.]

Cagnoli, Donatella (with **Meloni, Gian Carlo**) Free adjunction and a natural calculus

for a general logical operator. (Italian. English summary) (81f:03077)

Dubuc, Eduardo J. (with **Reyes, Gonzalo E.**) Subtoposes of the ring classifier. (81j:03098)

Eytan, M. Engeler algorithms in a topos. (81g:03081)

Freguglia, Paolo An algebraic-categorical interpretation of syllogism. (Italian)

(81d:03066)

Goldblatt, Robert L. ★Topoi. (81a:03063)

Hyland, J. M. E. (with **Johnstone, Peter T.**; **Pitts, A. M.**) Triples theory. (81i:03102)

Johnstone, Peter T. Conditions related to De Morgan's law. (81e:03062)

Another condition equivalent to De Morgan's law. (81d:03067)

See also **Hyland, J. M. E.**; et al., (81i:03102 and **Kock, Anders**, 81h:03064)

Kock, Anders Formally real local rings, and infinitesimal stability. (81h:03064)

Lambek, Joachim From types to sets. (81h:03124)

Meloni, Gian Carlo See **Cagnoli, Donatella**, (81f:03077)

Pitts, A. M. See **Hyland, J. M. E.**; et al., (81i:03102)

Reyes, Gonzalo E. Cramer's rule in the Zariski topos. (81e:03063)

See also **Dubuc, Eduardo J.**, (81j:03098)

Rosolini, Giuseppe Semilattices and frames in a topos. (Italian. English summary) (81i:03103)

secondary classifications:

Adelman, M. Points in topoi of sheaves over distributive lattices. (81e:18007)

Babnev, A. A. (with **Solov'ev, S. V.**) A coherence theorem for canonical morphisms in Cartesian closed categories. (Russian. English summary) (81g:03074)

Barr, Michael (with **Paré, Robert**) Molecular toposes. (81d:18010)

(with **Diaconescu, Radu**) Atomic toposes. (81e:18013)

Cole, J. C. Classifying topos. (81e:18008)

Coste, Michel See **Coste-Roy, Marie-Françoise**; et al., (81h:18005)

Coste-Roy, Marie-Françoise (with **Coste, Michel**; **Mahé, Louis**) Contribution to the study of the natural number object in elementary topos. (81h:18005)

Diaconescu, Radu See **Barr, Michael**, (81d:18013)

Im, Chang Ku On elementary toposes. (81h:18006)

Johnstone, Peter T. Open maps of toposes. (81f:18020)

Kennison, John F. Galois theory and theaters of action in a topos. (81j:18008)

Kock, Anders On the synthetic theory of vector fields. (81c:58004)

Lambek, Joachim From λ -calculus to Cartesian closed categories. (81m:03020)

Mahé, Louis See **Coste-Roy, Marie-Françoise**; et al., (81h:18005)

Paré, Robert See **Barr, Michael**, (81d:18010)

Reyes, Gonzalo E. Théorie des modèles et faisceaux. (81f:03050)

Roisin, J.-R. On functorializing usual first-order model theory. (81f:03051)

Rosebrugh, Robert D. On algebras defined by operations and equations in a topos. (81d:18011)

Rousseau, Christiane Complex structures on topoi. (81h:53001)

Scott, Dana Identity and existence in intuitionistic logic. (81a:03060)

Seely, R. A. G. Weak adjointness in proof theory. (81h:03063)

Sokolnicki, Krzysztof Characterizations of certain algebraic theories. (Russian summary) (81e:18009)

Solov'ev, S. V. See **Babnev, A. A.**, (81g:03074)

Stout, Lawrence Neff Laminations, or how to build a quantum-logic-valued model of set theory. (81f:03099)

Wraith, Gavin C. Generic Galois theory of local rings. (81c:13004)

Intuitionistic algebra: some recent developments in topos theory. (81f:18021)

03G99 None of the above, but in this section

secondary classifications:

Blok, W. J. The lattice of modal logics: an algebraic investigation. (81g:03014)

Nute, Donald E. Algebraic semantics for conditional logics. (81k:03029)

Schreiber, Ulrich See **Wellrauch, Klaus**, (81e:68055)

Wellrauch, Klaus (with **Schreiber, Ulrich**) Metric spaces defined by weighted algebraic cpo-s. (81e:68055)

03Hxx Nonstandard models [See also 03C62.]

03H05 Infinitesimal analysis in pure mathematics [See also 26E35, 30G10, 54J05.]

Bantes, Radu Study of the completion of linear topological spaces by nonstandard methods. (Romanian. English summary) (81g:03082)

Davis, Martin ★Прикладной нестандартный анализ. (Russian) [Applied nonstandard analysis] (81e:03064)

Hrbáček, Karel Nonstandard set theory. (81c:03055)

Jha, M. N. Generalised metric via ultra-real numbers. (81f:03078)

McKee, Terry A. Monadic characterizations in nonstandard topology. (81m:03074)

(Soprano, S. F.) See **Davis, Martin**, (81e:03064)

Tall, David Looking at graphs through infinitesimal microscopes, windows and telescopes. (81g:03083)

Ursini, Aldo From rational numbers to hyperreal numbers. (Italian. English summary) (81h:03125)

(Uspenskii, V. A.) See **Davis, Martin**, (81e:03064)

secondary classifications:

Grainger, Arthur D. On the nonstandard duality theory of locally convex spaces. (81g:46003)

Herrmann, Robert A. Perfect maps and remoteness. (81f:54082)

Kawal, Toru An axiom system for nonstandard set theory. (81d:03056)

An application of nonstandard analysis to characters of groups of continuous functions. (81i:22002)

Kock, Anders On the synthetic theory of vector fields. (81c:58004)

- (with Reyes, Gonzalo E.) Connections in formal differential geometry. (81h:53030)
- Komkov, Vadim A note on a formal manipulation of divergent series and integrals. (81c:40003)
- Langwitz, D. A nonstandard approach to distributions and operational calculus. (81d:46043)
- Lin, Shih Chao A proof-theoretic approach to nonstandard analysis with emphasis on distinguishing between constructive and nonconstructive results. (81m:03076)
- Mambriani, Antonio (with Mambriani, Giuseppe) Restricted derelgebra: first step towards a new "functional analysis". II. (Italian) (81j:44009)
- Mambriani, Giuseppe See Mambriani, Antonio, (81j:44009)
- Moore, L. C., Jr. Hyperfinite-dimensional subspaces of the nonstandard hull of c_0 . (81m:46037)
- Reyes, Gonzalo E. See Kock, Anders, (81h:53030)
- Smlnov, S. V. Approximations of mappings into a group. (Russian) (81h:41038)
- Sochor, Antonín (with Vopěnka, Petr) Endomorphic universes and their standard extensions. (81i:03083)
- Tacon, D. G. Nonstandard extensions of transformations between Banach spaces. (81e:47021)
- Tulpani, S. On solutions of algebraic equations whose coefficients are germs of continuous functions. (Italian summary) (81h:39006)
- Vopěnka, Petr See Sochor, Antonín, (81i:03083)

03H10 Other applications of infinitesimal analysis

- Fenstad, Jens Erik Nonstandard methods in stochastic analysis and mathematical physics. 81m:03075
- Wozniak, Czesław Nonstandard analysis and its application to mechanics. 81e:03065
- secondary classifications:

- Brown, Donald J. (with Khan, M. Ali) An extension of the Brown-Robinson equivalence theorem. (81d:90023)
- Harthong, Jacques Le moiré. (English summary) (81g:78005)
- Keller, J. P. The intermittent server. (81h:60118)
- Khan, M. Ali See Brown, Donald J., (81d:90023)

03H15 Nonstandard models of arithmetic [See also 10N15, 12L15, 13L05.]

- Manevitz, Larry (with Stavi, Jonathan) Δ^0_2 operators and alternating sentences in arithmetic. 81a:03064
- Marek, Wiktor (with Ziński, Paweł) On a class of models of the n th order arithmetic. 81i:03104
- McAlon, Kenneth Completeness theorems, incompleteness theorems and models of arithmetic. 81e:03066
- Mills, George Substructure lattices of models of arithmetic. 81i:03105
- See also Paris, J. B., 81j:03099
- Paris, J. B. (with Mills, George) Closure properties of countable nonstandard integers. 81j:03099
- Richard, Denis Saturation des modèles de Peano. (English summary) 81f:03079
- Soprunov, S. F. Lattices of nonstandard arithmetics. (Russian) 81j:03100
- Stavi, Jonathan See Manevitz, Larry, 81a:03064
- Ziński, Paweł See Marek, Wiktor, 81i:03104

secondary classifications:

- DeMillo, Richard A. (with Lipton, Richard J.) Some connections between mathematical logic and complexity theory. (81h:03084)
- Lipton, Richard J. On the consistency of $P=NP$ and fragments of arithmetic. (81k:03034)
- See also DeMillo, Richard A., (81h:03084)
- (McAlon, Kenneth) See Models of arithmetic, (81j:03006)
- Paris, J. B. Note on an induction axiom. (81e:03057)
- Arithmétique ★Modèles de l'arithmétique. (French) [Models of arithmetic] (81j:03006)
- Astérisque ★Modèles de l'arithmétique. (French) [Models of arithmetic] (81j:03006)
- Models of arithmetic ★Modèles de l'arithmétique. (French) [Models of arithmetic] (81j:03006)
- Paris ★Modèles de l'arithmétique. (French) [Models of arithmetic] (81j:03006)
- Seminar:
- Models of Arithmetic ★Modèles de l'arithmétique. (French) [Models of arithmetic] (81j:03006)

03H20 Other nonstandard models [See also 54J05.]

- Coletti, Giulianella (with Regoli, Giuliana; Vincenti, Rita) Algebraic and topological structure of nonstandard models of the reals. (Italian. English summary) 81k:03065a
- (with Regoli, Giuliana; Vincenti, Rita) Errata: "Algebraic and topological structure of nonstandard models of the reals". (Italian) 81k:03065b
- Lin, Shih Chao A proof-theoretic approach to nonstandard analysis with emphasis on distinguishing between constructive and nonconstructive results. 81m:03076
- Regoli, Giuliana See Coletti, Giulianella; et al., 81k:03065a and Coletti, Giulianella; et al., 81k:03065b
- Vincenti, Rita See Coletti, Giulianella; et al., 81k:03065a and Coletti, Giulianella; et al., 81k:03065b

secondary classifications:

- Cheriton, Christine Type d'ordre des ordinaux de modèles non dénombrables de la théorie des ensembles. (81d:03036)
- Herrmann, Robert A. Nonstandard implication algebras. (81f:03074)

03H99 None of the above, but in this section

04-XX SET THEORY

04-01 Elementary exposition, textbooks

- Abian, Alexander (with LaMacchia, Samuel E.) On the consistency and independence of some set-theoretical axioms. 81e:04001
- Ebbinghaus, Heinz-Dieter ★Einführung in die Mengenlehre. (German) [Introduction to set theory] 81f:04001
- Klaus, Dieter ★Mengenlehre. (German) [Set theory] 81h:04001
- LaMacchia, Samuel E. See Abian, Alexander, 81e:04001
- Volkov, V. A. ★Элементы теории множеств и развитие понятия числа. (Russian) [Elements of set theory and the development of the concept of number] 81h:04001
- Wojciechowska, Agnieszka ★Elementy logiki i teorii mnogości. (Polish) [Elements of logic and set theory] 81h:04002

04-02 Advanced exposition (research surveys, monographs, etc.)

secondary classifications:

- Mathias, A. R. D. Surrealist landscape with figures (a survey of recent results in set theory). (81h:03057)

04-03 Historical (must also be assigned at least one classification number from Section 01)

- Specker, Ernst Die Entwicklung der axiomatischen Mengenlehre. 81i:04001
- secondary classifications:

- Coelho, Renato Pereira Old and new aspects of the theory of real numbers. I. (Portuguese) (81m:01038)
- (Felgner, Ulrich) See Mengenlehre, (81f:01050a)
- Halbirt, Michael Towards a theory of mathematical research programmes. I. (81j:00017a)
- Towards a theory of mathematical research programmes. II. (81j:00017b)
- Mengenlehre ★Mengenlehre. (German) [Set theory] (81f:01050a)
- Set theory ★Mengenlehre. (German) [Set theory] (81f:01050a)

04-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

- Pastre, D. Automatic theorem proving in set theory. (81e:68114)

04-06 Proceedings, conferences, etc.

secondary classifications:

- (Arsenin, V. Ja.) See Ljapunov, A. A., (81c:01033)
- (Kozlova, Z. I.) See Ljapunov, A. A., (81c:01033)
- Ljapunov, A. A. ★Вопросы теории множеств и теории функций. (Russian) [Questions of set theory and function theory] (81c:01033)
- (Štegor'kov, E. A.) See Ljapunov, A. A., (81c:01033)
- (Sobolev, S. L.) See Ljapunov, A. A., (81c:01033)
- (Taimanov, A. D.) See Ljapunov, A. A., (81c:01033)
- Bibliography:
- Ljapunov, A. A. See Ljapunov, A. A., (81c:01033)
- Biography:
- Ljapunov, A. A. See Ljapunov, A. A., (81c:01033)

04A05 Relations, functions [See also 08A02.]

- Aumann, Georg On equivalence relations in mapping theory. 81k:04002
- Banković, Dragić On general and reproductive solutions of arbitrary equations. 81f:04002
- Gallagher, Leonard Almost every tree function is independent. 81d:04001
- Parovikentko, I. I. Some constructions of set-theoretic operations. (Russian) 81e:04002
- Pinus, A. G. Weak commutativity of scattered summation of linear orders. (Russian) 81h:04003
- Plonka, J. On automorphism groups of relational systems and universal algebras. 81e:04003
- Pouzet, Maurice Relation minimale pour son âge. 81a:04001

secondary classifications:

- Beller, Aaron (with Litman, Ami) A strengthening of Jensen's \square principles. (81k:03051)
- Chajda, Ivan Partitions, coverings and blocks of compatible relations. (Serbo-Croatian summary) (81f:08002)
- Chase, Karen New semigroups of binary relations. (81d:20060a)
- Domingo, Xavier On order and betweenness compatibility. (81a:06001)
- Gnedonov, L. N. The algebra of correlations and abstract systems. (Russian) (81c:08002)
- Hagendorf, Jean Guillaume Extensions respectueuses de chaînes. (81c:06002)
- Kim, Ki Haeng (with Roush, Fred W.) Quasivarieties of binary relations. (81e:08012)
- Krusa, A. Ja. The theory of expected utility for intransitive preferences. (Russian) (81j:90017)
- Lavallée, Ivan Rectangles maximaux dans une relation binaire quelconque. (81f:05077)
- Levitz, Hilbert An ordinal bound for the set of polynomial functions with exponentiation. (81f:04003)

- Litman, Ami See Beller, Aaron, (81h:03051)
 Loś, Jerzy Characteristic sets of a system of equivalence relations. (81h:04004)
 Marcinkiewicz, Helena (with Żurawska, Lucyna) Some remarks on Galois correspondence. (81m:08001)
 Roush, Fred W. See Kim, Ki Hang, (81e:08012)
 Sertel, Murat R. (with Van der Bellen, Alexander) Computations in choice groupoids. (81g:90010)
 Šik, František Schreier-Zassenhaus theorem for algebras. I. (81e:08003)
 Talkova, B. S. See Velinov, Ju. P., (81i:05096)
 Van der Bellen, Alexander See Sertel, Murat R., (81g:90010)
 Velinov, Ju. P. (with Talkova, B. S.) Equivalence relations agreeing with a tolerance relation. (Bulgarian. Russian and English summaries) (81i:05096)
 Żurawska, Lucyna See Marcinkiewicz, Helena, (81m:08001)

04A10 Transfinite numbers

- Goshory, Harry Number theory for the ordinals with a new definition for multiplication. 81m:04001
 Levitz, Hilbert An ordinal bound for the set of polynomial functions with exponentiation. 81f:04003
 The Cartesian product of sets and the Hessenberg natural product of ordinals. 81h:04003
 McBeth, Rod A note on Hardy's persistent numbers. 81a:04002
 Fundamental sequences for exponential polynomials. 81f:04004

04A15 Descriptive set theory; Borel classifications, Suslin schemes, etc.
[See also 03E15, 28A05, 54H05.]

- Balzanov, B. S. A property of Borel sets. (Russian) 81k:04001
 Burgess, John P. A reflection phenomenon in descriptive set theory. 81i:04002
 Freilwald, Ronald C. (with McDowell, R.; McHugh, E. F., Jr.) Borel sets of exact class. 81k:04002
 Frolík, Zdeněk The concept of nonseparable analytic set. 81m:04002
 Louveau, Alain A separation theorem for Σ^1_1 sets. 81j:04001
 Martin, Donald A. Infinite games. 81i:04003
 McDowell, R. See Freilwald, Ronald C.; et al., 81k:04002
 McHugh, E. F., Jr. See Freilwald, Ronald C.; et al., 81k:04002
 Parovčenko, I. I. Some questions connected with set-theoretic operations. (Russian) 81j:04002
 Šalenko, N. I. Permutability of set-theoretic operations with a countable index set. (Russian) 81j:04003

secondary classifications:

- Bourgain, Jean Decompositions in the product of a measure space and a Polish space. (81a:28002)
 Burgess, John P. A selection theorem for group actions. (81a:54041)
 Jayne, John E. (with Rogers, C. A.) Borel isomorphisms at the first level. I. (81h:54048a)
 (with Rogers, C. A.) Borel isomorphisms at the first level. II. (81h:54048b)
 Kuratowski, Kazimierz Some remarks on the origins of the theory of functions of a real variable and of the descriptive set theory. (81j:26003)
 Louveau, Alain σ -idéaux engendrés par des ensembles fermés et théorèmes d'approximation. (English summary) (81i:03078)
 Mauldin, R. Daniel Some selection theorems and problems. (81g:28013)
 Rao, B. V. See Rao, K. P. S. Bhaskara, (81g:54043)
 Rao, K. P. S. Bhaskara (with Rao, B. V.) On the isomorphism problem for analytic sets. (Russian summary) (81g:54043)
 Rogers, C. A. See Jayne, John E., (81h:54048a) and (81h:54048b)

04A20 Combinatorial [See also 05A05.]; filters

- Avraham, Uri Construction of a rigid Aronszajn tree. 81i:04004
 Balcar, Bohuslav (with Vojtáš, Peter) Almost disjoint refinement of families of subsets of \mathbb{N} . 81e:04004
 Baumgartner, James E. (with Erdős, Paul; Galvin, Fred; Larson, Jean A.) Colorful partitions of cardinal numbers. 81d:04002
 Dugoniet-Teissier, Maryvonne Ultrafilters à la façon de Ramsey. (English summary) 81h:04004
 Erdős, Paul (with Galvin, Fred; Rado, Richard) Transversals and multitransversals. 81c:04001
 See also Baumgartner, James E.; et al., 81d:04002
 Galvin, Fred See Erdős, Paul; et al., 81c:04001 and Baumgartner, James E.; et al., 81d:04002
 Grzegorek, E. On a paper by Karel Priky concerning Ulam's problem on families of measures [Monatsh. Math. 81 (1976), no. 1, 41–57; MR 53 #2689]. 81i:04005
 Holz, Michael (with Podewski, Klaus-Peter; Steffens, Karsten) Hall families and the marriage problem. 81e:04005
 Jeck, Thomas J. On a problem of L. Nachbin. 81d:04003
 Koppelberg, Sabine Cardinalities of ultraproducts of finite sets. 81i:04006
 Larson, Jean A. Pinning for pairs of countable ordinals. 81i:04007
 See also Baumgartner, James E.; et al., 81d:04002
 Loś, Jerzy Characteristic sets of a system of equivalence relations. 81h:04004
 Nash-Williams, C. St. J. A. Marriage in infinite societies in which each woman knows countably many men. 81i:04008
 Okazaki, Hiromitsu Some remarks on Gödel's memorandum for the cardinality of the continuum. 81g:04001
 Podewski, Klaus-Peter See Holz, Michael; et al., 81e:04005
 Rado, Richard See Erdős, Paul; et al., 81c:04001
 Schmidt, Diana A partition theorem for ordinals. 81d:04004

- Shelah, Saharon Weakly compact cardinals: a combinatorial proof. 81i:04009
 Steffens, Karsten See Holz, Michael; et al., 81e:04005
 Stothers, W. W. (with Tomkinson, M. J.) On infinite families of sets. 81b:04005
 Strauch, Otto Injective choice functions. (Slovak. English and Russian summaries) 81f:04005
 Tomkinson, M. J. See Stothers, W. W., 81b:04005
 Vojtáš, Peter See Balcar, Bohuslav, 81e:04004
 Wolfsdorf, Kurt Über Partitionen endlicher Teilmengen. (English summary) 81h:04005

secondary classifications:

- Ahlsvede, Rudolf (with Daykin, David E.) The number of values of combinatorial functions. (81a:05012)
 Balcar, Bohuslav (with Frankiewicz, Ryszard) Ultrafilters and ω_1 -points in $\beta\mathbb{N} \setminus \mathbb{N}$. (Russian summary) (81i:54003)
 Baumert, Leonard D. (with McEliece, Robert J.; Rodemich, Eugene R.; Rumsey, Howard, Jr.) A probabilistic version of Sperner's theorem. (81j:05001)
 Borsuk, Karol (with Vaina, Rimas) On covering of bounded sets by sets with the two less diameter. (81f:52019)
 Comfort, W. W. Ultrafilters: an interim report. (81a:54007)
 Dacik, R. Common transversals of finite families. (81f:05004)
 Daykin, David E. Inequalities among the subsets of a set. (81i:05025)
 See also Ahlsvede, Rudolf, (81a:05012)
 Frankiewicz, Ryszard See Balcar, Bohuslav, (81i:54003)
 Galvin, Fred Chain conditions and products. (81m:03058)
 Hindman, Neil Ultrafilters and combinatorial number theory. (81m:10019)
 Junnila, Heikki J. K. On countability of point-finite families of sets. (81j:54032)
 Ketonen, Jussi Some combinatorial properties of ultrafilters. (81i:03080)
 McEliece, Robert J. See Baumert, Leonard D.; et al., (81j:05001)
 Milner, E. C. Transversals of infinite set systems. (81f:05005)
 Rado, Richard Sequential partition relations. (French summary) (81k:05003)
 Rodemich, Eugene R. See Baumert, Leonard D.; et al., (81j:05001)
 Rumsey, Howard, Jr. See Baumert, Leonard D.; et al., (81j:05001)
 Sarbadhikari, H. A selection theorem for multifunctions. (81g:54013)
 Vaina, Rimas See Borsuk, Karol, (81f:52019)
 Weese, Martin Mad families and ultrafilters. (81i:54004)

04A25 Axiom of choice and equivalent propositions (Zorn's lemma, etc.)
[See also 03E25.]

- Blass, Andreas Injectivity, projectivity, and the axiom of choice. 81j:04004
 Han, Nian Guo Two equivalent forms of Zorn's lemma. (Chinese. English summary) 81a:04003
 Holz, Michael (with Podewski, Klaus-Peter; Steffens, Karsten) A Hall criterion for countable families of sets. 81g:04002
 Podewski, Klaus-Peter See Holz, Michael; et al., 81g:04002
 Steffens, Karsten See Holz, Michael; et al., 81g:04002
 Wojciechowska, Agnieszka Noninductive proofs of principles that are equivalent to the axiom of choice. (Polish) 81d:04005

secondary classifications:

- Harazisvili, A. B. ★Некоторые вопросы функционального анализа и их приложения. (Russian) [Some questions of functional analysis and their applications] (81k:28003)
 The axiom of choice in the general theory of systems. (Russian. Georgian and English summaries) (81e:28001)

04A30 Continuum hypothesis, generalized continuum hypothesis [See also 03E50, 54A25.]

secondary classifications:

- Argyros, S. On the dimension of injective Banach spaces. (81c:46013)
 (Arhangel'skii, A. V.) See Wage, Michael L., (81i:28010)
 Feigner, Ulrich Bericht über die Cantorsche Kontinuums-Hypothese. (81f:01050)
 Harazisvili, A. B. ★Некоторые вопросы функционального анализа и их приложения. (Russian) [Some questions of functional analysis and their applications] (81k:28003)
 A property of a Hamel basis. (Russian. Georgian and English summaries) (81a:28003)
 Jensen, Christian U. Peano rings of arbitrary global dimension. (81i:16037)
 Mal'ugin, V. I. Luzin spaces. (Russian) (81m:03060)
 van Mill, Jan (with Vermeer, Johannes) Wallman compactifications and the continuum hypothesis. (81c:54039)
 Okazaki, Hiromitsu Some remarks on Gödel's memorandum for the cardinality of the continuum. (81i:04001)
 Vermeer, Johannes See van Mill, Jan, (81c:54039)
 Wage, Michael L. The product of Radon spaces. (Russian) (81i:28010)

04A99 Miscellaneous topics

secondary classifications:

- Fong, Amelia C. Inductively computable constructs in very high level languages. (81h:68009)
 Micek, J. Valuations of structures. (81f:03063)
 Approximations of σ -classes and π -classes. (81f:03064)
 Sochor, Antonin (with Vopěnka, Petr) Revealsments. (81f:03065)
 Vopěnka, Petr The lattice of indiscernibility equivalences. (81f:03062)
 See also Sochor, Antonin, (81f:03065)

05-XX COMBINATORICS (For finite fields, see 12Cxx.)

Erdős, Paul Some old and new problems in various branches of combinatorics. 81f:05001

05-01 Elementary exposition, textbooks

Carré, Bernard ★Graphs and networks. 81h:05001

Cohen, Daniel I. A. ★Basic techniques of combinatorial theory. 81i:05001

Deo, Narsingh ★Teoria grafów i jej zastosowania w technice i informatyce. (Polish)

[Graph theory with applications to engineering and computer science] 81e:05001

Halin, Rudolf ★Graphentheorie. I. (German) [Graph theory. I.] 81m:05001

Johnsen, Ben The art of counting, or Pólya's theorem. (Norwegian. English summary) 81i:05002

(Kacprzyk, Janusz) See Deo, Narsingh, 81e:05001

Kárteszi, Ferenc ★Введение в конечные геометрии. (Russian) [Introduction to finite geometries] 81f:05002

Riordan, John ★An introduction to combinatorial analysis. 81e:05002

(Solodovnikov, A. S.) See Kárteszi, Ferenc, 81f:05002

(Stanczak, Wiesław) See Deo, Narsingh, 81e:05001

(Varpahovskii, F. L.) See Kárteszi, Ferenc, 81f:05002

secondary classifications:

Cvetković, Dragos M. (with Doob, Michael; Sachs, Horst) ★Spectra of graphs. (81i:05054)

Doob, Michael See Cvetković, Dragos M.; et al., (81i:05054)

Dynkin, E. B. (with Uspenskii, V. A.) ★Mathematische Unterhaltungen. (German) [Mathematical conversations] (81f:00001)

Foulds, Les R. See Robinson, David Foster, (81k:05055)

(Friedel, Peter) See Dynkin, E. B.; et al., (81f:00001)

Harary, Frank Some theorems about graphs from social sciences. (81m:05118)

Madsen Barbosa, Ruy ★Grupos e combinatoria. (Portuguese) [Groups and combinatorics] (81a:20002)

Page, E. S. (with Wilson, L. B.) ★An introduction to computational combinatorics. (81d:68001)

Robinson, David Foster (with Foulds, Les R.) ★Digraphs: theory and techniques. (81k:05055)

Sachs, Horst See Cvetković, Dragos M.; et al., (81i:05054)

(Savel'ev, L. Ja.) See Olympiads. Algebra. Combinatorial analysis, (81j:00004)

Seidel, J. J. Strongly regular graphs. (81c:05027)

Uspenskii, V. A. See Dynkin, E. B., (81f:00001)

Wilson, L. B. See Page, E. S., (81d:68001)

Algebra ★Олимпиады. Алгебра. Комбинаторика. (Russian) [Olympiads. Algebra. Combinatorial analysis] (81j:00004)

Combinatorial analysis ★Олимпиады. Алгебра. Комбинаторика. (Russian)

[Olympiads. Algebra. Combinatorial analysis] (81j:00004)

Olympiads. Algebra. Combinatorial analysis ★Олимпиады. Алгебра. Комбинаторика. (Russian) [Olympiads. Algebra. Combinatorial analysis] (81j:00004)

05-02 Advanced exposition (research surveys, monographs, etc.)

(Capobianco, Michael F.) See Problems: Combinatorial mathematics, 81b:05002

Gronau, Hans-Dietrich O. F. Extremal families of subsets of a finite set. 81e:05003

Haemers, Willem ★Eigenvalue techniques in design and graph theory. 81i:05003

(Maurer, Stephen B.) See Problems: Combinatorial mathematics, 81b:05002

(McCarthy, Donald J.) See Problems: Combinatorial mathematics, 81b:05002

(Molluzzo, John C.) See Problems: Combinatorial mathematics, 81b:05002

(Schrijver, A.) See Packing and covering in combinatorics, 81b:05001

Seidel, J. J. The pentagon. 81c:05004

Sperner, Emanuel Fifty years of further development of a combinatorial lemma. A. B. 81i:05004

Stanton, Ralph G. Four covering problems. 81b:05002

Combinatorics ★Packing and covering in combinatorics. 81b:05001

Packing and covering in combinatorics ★Packing and covering in combinatorics. 81b:05001

Problems:

Combinatorial mathematics A collection of open problems. 81b:05002

secondary classifications:

(Beineke, Lowell W.) See Selected topics in graph theory, (81e:05059) and Applications of graph theory, (81b:05050)

Cohen, Daniel E. ★Combinatorial group theory. A topological approach. (81b:20001)

Lallement, Gérard ★Semigroups and combinatorial applications. (81j:20082)

Mader, W. Connectivity and edge-connectivity in finite graphs. (81d:05044)

Marshall, Albert W. (with Olkin, Ingram) ★Inequalities: theory of majorization and its applications. (81b:00002)

Mohanty, Sri Gopal ★Lattice path counting and applications. (81f:60020)

Narayana, T. V. ★Lattice path combinatorics with statistical applications. (81f:60019)

Nešetřil, Jaroslav (with Rödl, Vojtěch) Partition theory and its application. (81m:05015)

Olkin, Ingram See Marshall, Albert W., (81b:00002)

Rödl, Vojtěch See Nešetřil, Jaroslav, (81m:05015)

(Wilson, Robin J.) See Selected topics in graph theory, (81e:05059) and Applications of graph theory, (81b:05050)

Applications of graph theory ★Applications of graph theory. (81b:05050)

Graph theory ★Selected topics in graph theory. (81e:05059)

★Applications of graph theory. (81b:05050)

Selected topics in graph theory ★Selected topics in graph theory. (81e:05059)

05-03 Historical (must also be assigned at least one classification number from Section 01)

Harary, Frank Independent discoveries in graph theory. 81a:05001
The explosive growth of graph theory. 81f:05003

secondary classifications:

Abe, Gakuhō On "Gohōjin Henstū Jutzu (the methods of transformation of magic squares of order 5)". (Japanese) (81c:01006)

Olizova, E. P. The origins of symbolic and combinatorial methods at the end of the 18th and at the beginning of the 19th century. (Russian) (81g:01010)

05-04 Explicit machine computation and programs (not the theory of computation or programming)

Barnabei, Marielena (with Nicoletti, Giorgio) An interactive program for finite incidence structures. 81m:05002

Fredricksen, Harold Schur numbers and the Ramsey numbers $N(3, 3, \dots, 3; 2)$. 81d:05001

McKay, Brendan D. Computing automorphisms and canonical labellings of graphs. 81b:05003

Nicoletti, Giorgio See Barnabei, Marielena, 81m:05002

secondary classifications:

Atkinson, M. D. Some permutation groups of degree $p = 6q + 1$. (81e:20003)

Brouwer, Andries E. ★On the existence of 30 mutually orthogonal Latin squares. (81d:05013)

Farley, Arthur M. (with Proskurowski, Andrzej) Computation of the center and diameter of outerplanar graphs. (81j:05094)

Grannell, M. J. (with Griggs, T. S.) A note on the Steiner systems $S(5, 6, 24)$. (81e:05032)

Griggs, T. S. See Grannell, M. J., (81e:05032)

Proskurowski, Andrzej See Farley, Arthur M., (81j:05094)

Read, Ronald C. Some applications of computers in graph theory. (See 81e:05059) Algorithms in graph theory. (See 81h:05050)

A note on tiling rectangles with dominoes. (81g:05053)

05-06 Proceedings, conferences, etc.

(Bollobás, Béla) See Surveys in combinatorics, 81b:05005

(Chinn, Phyllis Z.) See Proceedings: West Coast Conference on Combinatorics, Graph Theory and Computing, 81i:05006

(Deza, M.) See Combinatorics, 81k:05001

(Hoffman, Frederick) See Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, 81b:05004

(Mathsen, R. M.) See Combinatorics, representation theory and statistical methods in groups, 81b:05003

(McCarthy, David) See Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, 81b:05004 and Proceedings: West Coast Conference on Combinatorics, Graph Theory and Computing, 81i:05006

(Mullin, Ronald C.) See Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, 81b:05004

(Narayana, T. V.) See Combinatorics, representation theory and statistical methods in groups, 81b:05003

(Rosenberg, Ivo G.) See Combinatorics, 81k:05001

(Srivastava, Jagdish N.) See Combinatorial mathematics, optimal designs and their applications, 81i:05005

(Stanton, Ralph G.) See Proceedings: Southeastern Conference on Combinatorics, Graph Theory and Computing, 81b:05004

(Williams, Jeffrey George) See Combinatorics, representation theory and statistical methods in groups, 81b:05003

(Wilson, Robin J.) See Graph theory and combinatorics, 81h:05004

(Young, Alfred) See Combinatorics, representation theory and statistical methods in groups, 81b:05003

Arcata, Calif. ★Proceedings of the West Coast Conference on Combinatorics, Graph Theory and Computing, 81i:05006

Boca Raton, Fla. ★Proceedings of the Tenth Southeastern Conference on

Combinatorics, Graph Theory and Computing. Vols. I, II. 81b:05004

Cambridge ★Surveys in combinatorics. 81b:05005

Colloquium:

Combinatorics ★Combinatorics 79. Part I. 81k:05001a

★Combinatorics 79. Part II. 81k:05001b

Combinatorial mathematics, optimal designs and their applications ★Combinatorial mathematics, optimal designs and their applications. 81i:05005

Combinatorics ★Proceedings of the Tenth Southeastern Conference on Combinatorics, Graph Theory and Computing. Vols. I, II. 81b:05004

★Surveys in combinatorics. 81b:05005

★Graph theory and combinatorics. 81h:05004

★Proceedings of the West Coast Conference on Combinatorics, Graph Theory and Computing. 81i:05006

★Combinatorics 79. Part I. 81k:05001a

★Combinatorics 79. Part II. 81k:05001b

Combinatorics, representation theory and statistical methods in groups ★Combinatorics, representation theory and statistical methods in groups. 81b:05003

Computing ★Proceedings of the Tenth Southeastern Conference on Combinatorics, Graph Theory and Computing. Vols. I, II. 81b:05004

★Proceedings of the West Coast Conference on Combinatorics, Graph Theory and Computing. 81i:05006

Conference:

- British Combinatorial** ★Surveys in combinatorics. 81b:05005
Graph Theory and Combinatorics ★Graph theory and combinatorics. 81b:05004
Southeastern, Combinatorics, Graph Theory and Computing ★Proceedings of the Tenth Southeastern Conference on Combinatorics, Graph Theory and Computing. Vols. I, II. 81b:05004
West Coast, Combinatorics, Graph Theory and Computing ★Proceedings of the West Coast Conference on Combinatorics, Graph Theory and Computing. 81b:05006

- Congressus Numerantium** ★Proceedings of the Tenth Southeastern Conference on Combinatorics, Graph Theory and Computing. Vols. I, II. 81b:05004
Fort Collins, Colo. ★Combinatorial mathematics, optimal designs and their applications. 81b:05005

- Graph theory** ★Proceedings of the Tenth Southeastern Conference on Combinatorics, Graph Theory and Computing. Vols. I, II. 81b:05004
 ★Proceedings of the West Coast Conference on Combinatorics, Graph Theory and Computing. 81b:05006

- Graph theory and combinatorics** ★Graph theory and combinatorics. 81b:05004
Groups ★Combinatorics, representation theory and statistical methods in groups. 81b:05003

- Milton Keynes** ★Graph theory and combinatorics. 81b:05004

- Montreal, Que.** ★Combinatorics 79. Part I. 81b:05001a

- ★Combinatorics 79. Part II. 81b:05001b

- Optimal design** ★Combinatorial mathematics, optimal designs and their applications. 81b:05005

Proceedings:

- Southeastern Conference on Combinatorics, Graph Theory and Computing** ★Proceedings of the Tenth Southeastern Conference on Combinatorics, Graph Theory and Computing. Vols. I, II. 81b:05004

- West Coast Conference on Combinatorics, Graph Theory and Computing** ★Proceedings of the West Coast Conference on Combinatorics, Graph Theory and Computing. 81b:05006

- Representation theory** ★Combinatorics, representation theory and statistical methods in groups. 81b:05003

- Surveys in combinatorics** ★Surveys in combinatorics. 81b:05005

Symposium:

- Combinatorial Mathematics and Optimal Design** ★Combinatorial mathematics, optimal designs and their applications. 81b:05005

secondary classifications:

- (Bogemskaja, Z. V.) See *Computations in algebra and combinatorial analysis*, (81m:20003)

- (Kalužnin, L. A.) See *Computations in algebra and combinatorial analysis*, (81m:20003)

- (Rayward-Smith, V. J.) See *Combinatorial optimization*, (81i:90003)

- (Stogin, A. O.) See *Computations in algebra and combinatorial analysis*, (81m:20003)
 (Van Rens, G. H. J.) See *Proceedings: Manitoba Conference on Numerical Mathematics and Computing*, (81j:65011)

- (Williams, H. C.) See *Proceedings: Manitoba Conference on Numerical Mathematics and Computing*, (81j:65011)

- Algebra** ★Вычисления в алгебре и комбинаторике. (Russian) [Computations in algebra and combinatorial analysis] (81m:20003)

Colloquium:

- Graph Theory and Its Applications** ★Beiträge zur Graphentheorie und deren Anwendungen. (German) [Contributions to graph theory and its applications] (81b:05040)

- Combinatorial analysis** ★Вычисления в алгебре и комбинаторике. (Russian)

- [Computations in algebra and combinatorial analysis] (81m:20003)

- Combinatorial optimization** ★Combinatorial optimization. II. (81i:90003)

- Computations in algebra and combinatorial analysis** ★Вычисления в алгебре и комбинаторике. (Russian) [Computations in algebra and combinatorial analysis] (81m:20003)

- Computing** ★Proceedings of the Ninth Manitoba Conference on Numerical Mathematics and Computing. (81j:65011)

Conference:

- Combinatorial Optimization** ★Combinatorial optimization. II. (81i:90003)

- Manitoba, Numerical Mathematics and Computing** ★Proceedings of the Ninth Manitoba Conference on Numerical Mathematics and Computing. (81j:65011)

- Contributions to graph theory and its applications** ★Beiträge zur Graphentheorie und deren Anwendungen. (German) [Contributions to graph theory and its applications] (81b:05040)

- Graph theory** ★Beiträge zur Graphentheorie und deren Anwendungen. (German)

- [Contributions to graph theory and its applications] (81b:05040)

- Norwich** ★Combinatorial optimization. II. (81i:90003)

- Numerical mathematics** ★Proceedings of the Ninth Manitoba Conference on Numerical Mathematics and Computing. (81j:65011)

- Oberhof** ★Beiträge zur Graphentheorie und deren Anwendungen. (German)

- [Contributions to graph theory and its applications] (81b:05040)

- Optimization** ★Combinatorial optimization. II. (81i:90003)

Proceedings:

- Manitoba Conference on Numerical Mathematics and Computing** ★Proceedings of the Ninth Manitoba Conference on Numerical Mathematics and Computing. (81j:65011)

- Winnipeg, Man.** ★Proceedings of the Ninth Manitoba Conference on Numerical Mathematics and Computing. (81j:65011)

05Axx Classical combinatorial problems

secondary classifications:

- Erős, Paul Old and new problems in combinatorial analysis and graph theory. (81a:05033)

- A survey of problems in combinatorial number theory. (81m:10001)
 Lew, John S. Polynomial enumeration of multidimensional lattices. (81b:60019)

05A05 Combinatorial choice problems (subsets, representatives, permutations)

- Abbott, H. L. (with Katchalski, Meir) Linear orderings satisfying certain constraints. 81b:05005

- Babai, László (with Frankl, Péter) On set intersections. 81d:05002

- Baumert, Leonard D. (with McEliece, Robert J.; Rodemich, Eugene R.; Rumsey, Howard, Jr.) A probabilistic version of Sperner's theorem. 81j:05001

- Beeler, Michael D. (with O'Neil, Patrick E.) Some new van der Waerden numbers. 81d:05003

- Boccara, G. Nombre de représentations d'une permutation comme produit de deux cycles de longueurs données. (English summary) 81d:05004

- Burkov, V. N. (with Pankova, L. A.; Sniderman, M. V.) The problem of formation of expert groups. (Russian) 81g:05001

- Dacić, R. Common transversals of finite families. 81b:05004

- Demel, Jiri Maximal frequencies of equivalences with small classes. 81b:05007

- Dymacek, Wayne M. (with Roselle, D. P.) Circular permutations by number of rises and successions. 81b:05008

- Françon, Jean (with Viennot, Gérard) Permutations selon leurs pics, creux, doubles montées et double descentes, nombres d'Euler et nombres de Genocchi. (English summary) 81a:05002

- Frankl, Péter Families of finite sets satisfying union restrictions. 81b:05006
 On intersecting families of finite sets. 81m:05003

- See also Babai, László, 81d:05002

- Füredi, Zoltán On maximal intersecting families of finite sets. 81g:05002

- Griggs, Jerrold R. On chains and Sperner k -families in ranked posets. 81e:05006

- Gronau, Hans-Dietrich O. F. On Sperner families in which no k sets have an empty intersection. 81g:05003

- Gueneche, Alain Enumeration des tableaux standards. 81j:05002

- Gupta, Hansraj On cycles of k integers. 81g:05004

- Hayasaka, Takanori (with Saito, Sadao) Langford sequences: a progress report. 81b:05007

- Hilton, A. J. W. A simple proof of the Kruskal-Katona theorem and of some associated binomial inequalities. 81d:05006

- Hochberg, Murray Doubly incomparable s -systems. 81e:05007

- Ikeno, Nobuichi See Nakamura, Gsaku; et al., 81m:05004

- Katchalski, Meir See Abbott, H. L., 81b:05005

- Katerinokina, N. N. Sets that contain the greatest number of pairwise noncomparable n -dimensional k -ary collections. (Russian) 81b:05008

- Kiyasu, Zen'iti See Nakamura, Gsaku; et al., 81m:05004

- Kornienko, N. M. (with Metel'skii, N. N.) Normalizer of a representation of a symmetric group and a quadratic choice problem. (Russian. English summary) 81b:05009

- Kreveras, Gernain Sur les produits de permutations unimodales. (English summary) 81b:05002

- Leahy, W. J. (with Nymann, J. E.) A note on a theorem of Lindström. 81e:05008

- Levinson, Henry (with Silverman, Ruth) Generalizations of property B. 81j:05003

- Li, Kuo Wei Sperner families over a subset. 81j:05004

- McEliece, Robert J. See Baumert, Leonard D.; et al., 81j:05001

- Metel'skii, N. N. See Kornienko, N. M., 81b:05009

- Milner, E. C. Transversals of infinite set systems. 81f:05005

- Mohanty, S. P. Shortest string containing all permutations. 81b:05005

- Mullen, Gary L. Local permutation polynomials over \mathbb{Z}_p . 81b:05006

- Nakamura, Gsaku (with Kiyasu, Zen'iti; Ikeno, Nobuichi) Solution of the round table problem for the case of $(p^2 + 1)$ persons. 81m:05004

- Nymann, J. E. See Leahy, W. J., 81e:05008

- O'Neil, Patrick E. See Beeler, Michael D., 81d:05003

- Pankova, L. A. See Burkov, V. N.; et al., 81g:05001

- Rado, Richard Sequential partition relations. (French summary) 81k:05003

- Robbins, David P. The probability that neighbors remain neighbors after random rearrangements. 81e:05009

- Rodemich, Eugene R. See Baumert, Leonard D.; et al., 81j:05001

- Roselle, D. P. See Dymacek, Wayne M., 81b:05008

- Rosenberg, Ivo G. A generalization of Hausdorff's independent sets. 81a:05003

- Rumsey, Howard, Jr. See Baumert, Leonard D.; et al., 81j:05001

- Saito, Sadao Harmonic analysis of the Langford sequence. 81m:05005

- See also Hayasaka, Takanori, 81b:05007

- Sannikova, A. K. (with Tanaev, V. S.) A class of extremal permutation problems. (Russian. English summary) 81e:05010

- Silverman, Ruth See Levinson, Henry, 81j:05003

- Singmaster, David Arranging a dartboard. 81j:05005

- Slater, Peter J. (with Vêlez, William Yslas) Permutations of the positive integers with restrictions on the sequence of differences. II. 81c:05001

- Sniderman, M. V. See Burkov, V. N.; et al., 81g:05001

- Sterbov, François Le problème du Loto. 81g:05005

- Tanaev, V. S. See Sannikova, A. K., 81e:05010

- Tucker, Albert W. On Sperner's lemma and another combinatorial lemma. 81a:05004

- Vêlez, William Yslas See Slater, Peter J., 81c:05001

- Viennot, Gérard See Françon, Jean, 81a:05002

- Walkup, David W. How many ways can a permutation be factored into two n -cycles? 81d:05005

- Walter, S. D. Some generalizations of the committee problem. (French summary) 81a:05005

- Whitehead, Earl Glen, Jr. Four-discordant permutations. 81e:05011

secondary classifications:

- Abbott, H. L. (with Liu, Andy C. F.) On property $B(s)$. (81c:05024)

- Bhat, Kabekode V. S. (with Kinariwala, Bharat) An algorithm for the $n \times n$ optimum assignment problem. (81b:9057)
- Carlitz, Leonard Enumeration of permutations by sequences. (81j:05009)
- Chajda, Ivan (with Dalík, Josef; Niederle, Josef; Veselý, Vítězslav; Zelinka, Bohdan) How to draw tolerance lattices of finite chains. (81k:06007)
- Conway, J. H. (with Pless, Vera) On the enumeration of self-dual codes. (81a:94032)
- Dalík, Josef See Chajda, Ivan; et al., (81k:06007)
- Erdős, Paul (with Galvin, Fred; Rado, Richard) Transversals and multitransversals. (81c:04001)
- Felzenbaum, A. (with Tamir, Arie) Cyclic permutations and nearly symmetric integer vectors. (81g:90064)
- Gabovík, E. Ja. (with Melamed, I. I.) On constant discrete programming problems. (81h:90098)
- Galvin, Fred See Erdős, Paul; et al., (81c:04001)
- Gronau, Hans-Dietrich O. F. Extremal families of subsets of a finite set. (81e:05003)
- Holz, Michael (with Podewski, Klaus-Peter; Steffens, Karsten) Hall families and the marriage problem. (81e:04005)
- (with Podewski, Klaus-Peter; Steffens, Karsten) A Hall criterion for countable families of sets. (81g:04002)
- Kinariwala, Bharat See Bhat, Kabekode V. S., (81b:90057)
- Liu, Andy C. F. See Abbott, H. L., (81c:05024)
- Loš, Jerzy Characteristic sets of a system of equivalence relations. (81h:04004)
- Mallows, C. L. Baxter permutations rise again. (81j:05014)
- Markowsky, George The representation of posets and lattices by sets. (81k:06003)
- Martello, Silvano (with Toth, Paolo) Optimal and canonical solutions of the change making problem. (81i:90148)
- Melamed, I. I. See Gabovík, E. Ja., (81h:90098)
- Nash-Williams, C. St. J. A. Marriage in infinite societies in which each woman knows countably many men. (81c:04008)
- Nemhauser, George L. (with Weber, Glenn M.) Optimal set partitioning, matchings and Lagrangian duality. (81g:90063)
- Niederle, Josef See Chajda, Ivan; et al., (81k:06007)
- Perfect, Hazel Remarks on Dilworth's theorem in relation to transversal theory. (81e:06002)
- Pless, Vera See Conway, J. H., (81a:94032)
- Podewski, Klaus-Peter See Holz, Michael; et al., (81e:04005) and Holz, Michael; et al., (81g:04002)
- Pomerance, Carl Collinear subsets of lattice point sequences—an analog of Szemerédi's theorem. (81m:10104)
- Proctor, Robert A. (with Saks, Michael E.; Sturtevant, Dean G.) Product partial orders with the Sperner property. (81f:06005)
- Rado, Richard See Erdős, Paul; et al., (81c:04001)
- Saks, Michael E. See Proctor, Robert A.; et al., (81f:06005)
- Steffens, Karsten See Holz, Michael; et al., (81e:04005) and Holz, Michael; et al., (81g:04002)
- Strauch, Otto Injective choice functions. (Slovak. English and Russian summaries) (81f:04005)
- Sturtevant, Dean G. See Proctor, Robert A.; et al., (81f:06005)
- Tamir, Arie See Felzenbaum, A., (81g:90064)
- Todorov, K. On the orders of the subsemigroups of the symmetrical semigroup \mathfrak{S}_n . (81m:20096)
- Toth, Paolo See Martello, Silvano, (81i:90148)
- Veselý, Vítězslav See Chajda, Ivan; et al., (81k:06007)
- Weber, Glenn M. See Nemhauser, George L., (81g:90063)
- Wegener, Ingo On separating systems whose elements are sets of at most k elements. (81b:05019)
- Zelinka, Bohdan See Chajda, Ivan; et al., (81k:06007)

05A10 Factorials, binomial coefficients, combinatorial functions

- Aschoff, Per Some combinatorial identities. 81f:05006
- Canfield, E. Rodney Application of the Berry-Esseen inequality to combinatorial estimates. 81e:05012
- Carlitz, Leonard Explicit formulas for the Dumont-Foata polynomial. 81f:05007
- Dénarnaud, Jacques La fonction de Möbius du monoïde plaxique. (English summary) 81e:05013
- Deza, M. Maximal permutation anticode. 81g:05006
- On permutation cliques. 81m:05006
- Dougherty, Robert Two transformations of series that commute with compositional inversion. 81j:05006
- El-Sharkaway, N. G. (with Jahn, Hermann Arthur; King, R. C.) New integral bases for symmetric functions. 81h:05007
- Goulden, I. P. See Stanton, Ralph G., 81e:05015
- Gronau, Hans-Dietrich O. F. Recognition of monotone functions. 81g:05007
- Harborth, Heiko Divisibility of $\binom{n}{m} + \binom{n}{m-1} + \dots + \binom{n}{m-h+1}$. 81i:05009
- Hinomatsu, Shin An elementary proof of the first-order remainder term in Stirling's formula. (Japanese) 81e:05014
- Jahn, Hermann Arthur See El-Sharkaway, N. G.; et al., 81h:05007
- Joni, S. A. The multi-indexed partition. 81g:05008
- (with Rota, Gian-Carlo) Coalgebras and bialgebras in combinatorics. 81c:05002
- Kaiser, Hans (with Kaiser, Hans-Christoph) Über eine Klasse von Binomialsummen. 81c:05003
- Kaiser, Hans-Christoph See Kaiser, Hans, 81c:05003
- King, R. C. See El-Sharkaway, N. G.; et al., 81h:05007
- Kuzjulin, N. N. Some recursive and asymptotic bounds in a covering problem. (Russian) 81c:05004
- Morris, D. M. (with Quadling, Douglas) Correspondence with a chemist. 81c:05005
- Olive, Gloria A combinatorial approach to generalized powers. 81f:05008
- Quadling, Douglas See Morris, D. M., 81c:05005
- Rota, Gian-Carlo See Joni, S. A., 81c:05002

- Shannon, A. G. A recurrence relation for generalized multinomial coefficients. 81c:05006
- Skillicorn, David Minimal sequences containing contiguous permutation subsequences. 81m:05007
- Stanton, Ralph G. (with Goulden, I. P.) Partial sums of some even negative binomials. 81c:05015
- Takács, Lajos A sum of binomial coefficients. 81g:05009
- Turner, Barbara Sums of powers of integers via the binomial theorem. 81j:05007
- Vannucci, Luigi A generalization of an inequality on binomial coefficients. (Italian summary) 81f:05009

secondary classifications:

- Berg, Lothar Lösungsdarstellungen für eine Rekursionsformel der Kombinatorik. (81e:05016)
- Deshpande, M. N. On generalisation of Pascal's triangle. (81k:10013)
- Foata, Dominique (with Schützenberger, Marcel-Paul) Major index and inversion number of permutations. (81d:05007)
- Gamut, D. S. See Sykes, M. F.; et al., (81m:82045)
- Glen, Maureen See Sykes, M. F.; et al., (81m:82045)
- Kim, Ki Hang (with Roush, F. W.) The average rank of a product of transformations. (81i:20095)
- Koc, I. P. Use of a factorial number system in optimization in a space of permutations. (Russian) (81h:65006)
- Nandi, S. B. On a generalized Stirling distribution of the first kind. (81j:60014)
- Ochiai, Shoji Note on the symmetric functions. (81a:55030)
- Olive, Gloria Binomial functions and combinatorial mathematics. (81a:05011)
- Orsted, Bent Composition series for analytic continuations of holomorphic discrete series representations of $SU(n, n)$. (81g:22020)
- Poppe, Harry (with Stärk, Andreas) A two-dimensional induction lemma with applications to the proof of combinatorial formulas. (81h:05010)
- Roush, F. W. See Kim, Ki Hang, (81i:20095)
- Schützenberger, Marcel-Paul See Foata, Dominique, (81d:05007)
- Stärk, Andreas See Poppe, Harry, (81h:05010)
- Stein, Alan H. Exponential sums related to binomial coefficient parity. (81k:10008)
- Sykes, M. F. (with Gaunt, D. S.; Glen, Maureen) Perimeter polynomials for bond percolation processes. (81m:82045)
- Ustjuzaninov, V. G. Certain properties of binary table coverings. (81i:05053)

05A15 Combinatorial enumeration problems, generating functions

- Abramson, Morton Permutations related to secant, tangent and Eulerian numbers. 81c:05007
- Agrawal, B. M. (with Agrawal, V. P.) Enumeration of permutations with cycle structure. 81i:05010
- Agrawal, V. P. See Agrawal, B. M., 81i:05010
- Aksen, Michael Variations on a theme of Pólya. 81f:05010
- Ambrosimov, A. S. (with Šarov, N. N.) Some asymptotic expansions for the number of functions with a nontrivial inertia group. (Russian) 81j:05008
- Balbes, Raymond On counting Sperner families. 81b:05010
- Barthelemy, J. P. An asymptotic equivalent for the number of total preorders on a finite set. 81f:05011
- Berg, Lothar Lösungsdarstellungen für eine Rekursionsformel der Kombinatorik. 81e:05016
- de Bruijn, N. G. On the number of partition patterns of a set. 81e:05017
- Bruschi, Massimo (with Ricci, Paolo Emilio) Functions of matrices and generator functions of Lucas polynomials in r variables. (Italian. English summary) 81f:05012a
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- Carlitz, Leonard Enumeration of permutations by sequences. 81j:05009
- Fibonacci notes. VI. Zero-one sequence once more. 81b:05008
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- Demetrovics, János (with Gyepesi, Gy.) Generation of functional dependencies and their representation by means of relations. (Russian. Hungarian and English summaries) 81m:05008
- Diale, Giulio Two combinatorial problems pertaining to the partitions of a finite set. (Italian. English summary) 81j:05010
- Dumont, Dominique Une généralisation trivariée symétrique des nombres eulériens. 81j:05011
- Everett, C. J. See Stein, Paul R., 81j:05019
- Fajtlowicz, Slemion A proof of an inequality of Marcus and Lopes. 81k:05004
- Foata, Dominique (with Schützenberger, Marcel-Paul) Major index and inversion number of permutations. 81d:05007
- (with Garsia, Adriano M.) A combinatorial approach to the Mehler formulas for Hermite polynomials. 81a:05007
- Further divisibility properties of the q -tangent numbers. 81k:05005
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- Gansner, Emden R. On the equality of two plane partition correspondences. 81g:05010
- Garsia, Adriano M. (with Remmel, J. B.) A combinatorial interpretation of q -derangement and q -Laguerre numbers. 81g:05011
- See also Foata, Dominique, 81a:05007
- Gerrish, F. Surjections from an m -set to an n -set. 81b:05011
- Gessel, Ira M. A factorization for formal Laurent series and lattice path enumeration. 81j:05012
- Glaz, J. The number of dense arrangements. 81e:05018
- Goldman, Jay R. Formal languages and enumeration. 81m:05009a
- Formal languages and enumeration. II. 81m:05009b

- Goulden, I. P. (with Jackson, D. M.) The application of algebraic methods to the enumeration of sequences and their q -analogues. **81h:05006**
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- Gyepesi, Gy. See Demetrovics, János, **81m:05008**
- Handa, B. R. (with Mohanty, Sri Gopal) Enumeration of higher-dimensional paths under restrictions. **81h:05012**
- Harris, Bernard On a theorem of Volosin concerning enumeration of function compositions. **81g:05012**
- Hodel, Margaret J. Enumeration of rectangular arrays of zeros and ones. **81i:05011**
- Hofbauer, Josef A short proof of the Lagrange-Good formula. **81e:05019**
- Jackson, D. M. (with Goulden, I. P.) Sequence enumeration and the de Bruijn-van Aardenne-Ehrenfest-Smith-Tutte theorem. **81j:05013**
 (with Jeffcott, B.; Spears, W. T.) The enumeration of sequences with respect to structures on a bipartition. **81m:05010**
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- Jeffcott, B. See Jackson, D. M.; et al., **81m:05010**
- Jordan, J. H. (with Walch, Ray; Wisner, R. J.) Triangles with integer sides. **81f:05013**
- Jucys, A.-A. A. Tournaments and generalized Young tableaux. (Russian) **81k:05007**
- Karpovsky, Mark (with Milman, V. D.) On subspaces contained in subsets of finite homogeneous spaces. **81g:05013**
- Kim, Jin Bai (with Lee, Yong M.) Combinatorial properties of a fuzzy matrix semigroup. **81i:05012**
- Kim, Ki Hang (with Rogers, Douglas G.; Roush, Fred W.) Similarity relations and semiorbits. **81i:05013**
- Klarner, David A. (with Pollack, Jordan) Domino tilings of rectangles with fixed width. **81k:05008**
- Lee, Yong M. See Kim, Jin Bai, **81i:05012**
- Magagnoli, David Recurrences and formulae in an extension of the Eulerian numbers. **81h:05009**
- Mallows, C. L. Baxter permutations rise again. **81j:05014**
- Mamontov, Ju. A. Asymptotic behavior of the number of minimal covering sets. (Russian) **81j:05015**
- Merris, Russell Manifestations of Pólya's counting theorem. **81g:05014**
- Michor, P. Contributions to finite operator calculus in several variables. **81h:05013**
- Milman, V. D. See Karpovsky, Mark, **81g:05013**
- Mohanty, Sri Gopal See Handa, B. R., **81h:05012**
- Myerson, Gerald A combinatorial problem in finite fields. II. **81i:05014**
- Niederhausen, Heinrich Lattice paths with three step directions. **81h:05012**
- Plotkin, J. M. (with Rosenthal, John) Some asymptotic methods in combinatorics. **81f:05014**
- Pollack, Jordan See Klarner, David A., **81k:05008**
- Popov, V. A. (with Skibenko, I. T.) Combinatorial approach to the classification of k -valued logical functions. **81j:05016**
- Poppe, Harry (with Stürk, Andreas) A two-dimensional induction lemma with applications to the proof of combinatorial formulas. **81k:05010**
- Poussin, F. Énumération des permutations par nombre de marches. (English summary) **81g:05015**
- Prabhakar, T. R. (with Gupta, Sharda) Bernoulli polynomials of the second kind and general order. **81m:05011**
- Razee, Reinhard A. Ordered partitions and codes generated by circulant matrices. **81g:05016**
- Rend, Ronald C. The chord intersection problem. **81g:05017**
- Reilly, James W. A combinatorial solution of two related problems in sequence enumeration. **81h:05014**
 (with Tanny, Stephen M.) Counting successions in permutations. **81h:05014**
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 "Bicoverings of a finite set" by generating function methods. **81h:05013**
- Rennel, J. B. See Garsia, Adriano M., **81g:05011**
- Ricci, Paolo Emilio See Bruschi, Massimo, **81f:05012a** and **Bruschi, Massimo, 81f:05012b**
- Richards, Dana S. On a theorem of Chorneyko and Mohanty. **81f:05015**
- Rogers, Douglas G. The enumeration of some restricted matrices. **81h:05015**
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- Roman, Steven The algebra of formal series. **81b:05016a**
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- Rosenthal, John See Plotkin, J. M., **81f:05014**
- Rota, Gian-Carlo (with Sagan, Bruce) Congruences derived from group action. **81g:05018**
- Roush, Fred W. See Kim, Ki Hang; et al., **81i:05013**
- Sagan, Bruce See Rota, Gian-Carlo, **81g:05018**
- Sarov, N. N. See Ambrosio, A. S., **81j:05008**
- Schützenberger, Marcel-Paul See Foata, Dominique, **81d:05007**
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- Stanley, Richard P. Generating functions. **81i:05015**
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- Streit, Volker Alternating permutations and modified Ghandi polynomials. **81d:05008**
- Takács, Lajos A generalization of the Eulerian numbers. **81j:05020**
- Tanny, Stephen M. See Reilly, James W., **81h:05014** and **Reilly, James W., 81j:05017**
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- Wagner, Carl G. Minimal multiplicative covers of an integer. **81a:05008**
- Walch, Ray See Jordan, J. H.; et al., **81f:05013**
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- Wisner, R. J. See Jordan, J. H.; et al., **81f:05013**
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- Agrawal, B. M. (with Kumar, Virendra) A q -expansion formula. **(81b:33021)**
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- Billera, Louis J. (with Lee, Carl W.) Sufficiency of McMullen's conditions for f -vectors of simplicial polytopes. **(81b:52004)**
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- Bressoud, David M. A simple proof of Mehler's formula for q -Hermite polynomials. **(81f:33009)**
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- Carlitz, Leonard Some remarks on the Bell numbers. **(81f:10020)**
 Weighted Stirling numbers of the first and second kind. I. **(81g:10026)**
- Cohen, Daniel I. A. Some sieves for partition theory. **(81h:05015)**
 (with Katz, Talbot M.) Recurrence of a random walk on the half-line as the generating function for the Catalan numbers. **(81h:60068)**
- Confaloni, Yvona Polynomials over the permutation group of three elements. **(81m:20009)**
- Dumont, Dominique Étude combinatoire d'une suite de polynômes associés aux polynômes ultrasphériques. **(81f:33008)**
- Ehrhart, Eugène Eine einfache Methode für das Partitionsproblem. (English summary) **(81c:90057)**
- Fill, James A. (with Izenman, Alan J.) The structure of RI-invariant twelve-tone rows. **(81f:20002)**
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- Gehrlin, William V. (with Fishburn, Peter C.) Proportions of profiles with a majority candidate. **(81e:90010)**
- Gillis, J. (with Kleeman, J.) A combinatorial proof of a positivity result. **(81b:33017)**
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- Gyires, B. On a generalization of Stirling's numbers of the first kind. **(81h:10018)**
- Hoggatt, Verner E., Jr. (with Bicknell-Johnson, Marjorie) Multisection of the Fibonacci convolution array and generalized Lucas sequence. **(81h:10014)**
- Ikeno, Nobuichi See Nakamura, Gisaku; et al., **(81m:05004)**
- Izenman, Alan J. See Fill, James A., **(81f:20002)**
- Joseph, James E. Maximum cardinalities for topologies on finite sets. **(81i:54005)**
- Kanelwa, Ryūji An asymptotic formula for Cayley's double partition function $p(2; n)$. **(81c:10059)**
- Katz, Talbot M. See Cohen, Daniel I. A., **(81h:60068)**
- Kim, Jin Bai The number of generalized inverses of a matrix. **(81e:15003)**
- Kim, Ki Hang (with Roush, Fred W.) Enumeration of certain words. **(81h:20073)**
- Kiyasu, Zen'iti See Nakamura, Gisaku; et al., **(81m:05004)**
- Kleeman, J. See Gillis, J., **(81b:33017)**
- Kleitman, Daniel J. (with Winston, K. J.) The asymptotic number of lattices. **(81m:06016)**
- Kumar, Virendra See Agrawal, B. M., **(81b:33021)**
- Laborde, Jean-Marie À propos d'un problème d'algèbre de Boole. (English summary) **(81k:05066)**
- Lascoux, A. (with Schützenberger, Marcel-Paul) A new statistics on words. **(81m:20018)**
- Lee, Carl W. See Billera, Louis J., **(81b:52004)**
- Leighton, Frank Thomson (with Newman, Morris) Positive definite matrices and Catalan numbers. **(81c:15019)**
- Mathur, B. L. On some results involving Lauricella functions. **(81c:33002)**
- Merris, Russell Pattern inventories associated with symmetry classes of tensors. **(81e:15015)**
- Moon, J. W. Lattice paths in regions with the Catalan property. **(81i:05098)**
- Mutafiev, Ljuben R. Limit properties of components of random mappings. **(81f:60015)**
- Nakamura, Gisaku (with Kiyasu, Zen'iti; Ikeno, Nobuichi) Solution of the round table problem for the case of $(p^k + 1)$ persons. **(81m:05004)**
- Newman, Morris See Leighton, Frank Thomson, **(81c:15019)**
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- Protasov, I. V. (with Tretjak, V. P.; Čarin, V. S.) On the covering problem. (Russian. English summary) **(81d:90072)**
- Purdy, George B. See Burton, G. R., **(81d:52006)**
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- Roush, Fred W. See Kim, Ki Hang, **(81i:05013)**
- Schützenberger, Marcel-Paul See Lascoux, A., **(81m:20018)**
- Sheffer, I. M. On a class $W[k, s; C_p]$ of polynomial sets. I. **(81d:33011)**
- Spencer, Joel H. Counting magic squares. **(81j:05042)**
- Srivastava, Hari M. Some generalizations of Carlitz's theorem. **(81f:33015)**
- Stanley, Richard P. Invariants of finite groups and their applications to combinatorics. **(81a:20015)**
- Tretjak, V. P. See Protasov, I. V.; et al., **(81d:90072)**

- Valiant, L. G. Negative results on counting. (81j:68056)
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- Andrews, George E. Macdonald's conjecture and descending plane partitions. 81m:05013
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 Bressoud, David M. A combinatorial proof of Schur's 1926 partition theorem. 81f:05017
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 Dress, Andreas W. M. Eine Bemerkung zur Ruch-Schönhoferschen Halbordnung von Young-Diagrammen. 81b:05017
 Edelman, Paul H. Chain enumeration and noncrossing partitions. 81i:05018
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 Hu, Mien Ch'ang A note on sum-free sets of integers. 81i:05019
 Kaluza, Theodor Äquivalenz einer Variante des Satzes von Ramsey mit einem Satz über Folgen in geordneten Mengen. 81i:05020
 Mullineux, G. A bijection of the set of 3-regular partitions. 81i:05021
 Nešetřil, Jaroslav (with Rödl, Vojtěch) Partition theory and its application. 81m:05015
 Robinson, David Foster Decomposition of integral pseudometrics. 81f:05018
 Rödl, Vojtěch See Nešetřil, Jaroslav, 81m:05015
 Shearer, James B. A simple counterexample to a conjecture of Rota. 81a:05009
 Spencer, Joel H. All finite configurations are almost Ramsey. 81d:05010
 Stanley, Richard P. Unimodal sequences arising from Lie algebras. 81k:05011
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 Thomas, Gianfréd P. On Schensted's construction and the multiplication of Schur functions. 81g:05022
 Voigt, Bernd The partition problem for finite abelian groups. 81h:05016
 White, Dennis E. Monotonicity and unimodality of the pattern inventory. 81m:05017

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- Birney, Imre A short proof of Kneser's conjecture. (81g:05056)
 Bressoud, David M. A generalization of the Rogers-Ramanujan identities for all moduli. (81c:05008)
 Analytic and combinatorial generalizations of the Rogers-Ramanujan identities. (81i:10019)
 Bruynel, Guido On balanced sets, with applications in game theory. (81e:90098)
 Carlitz, Leonard Restricted multipartite compositions. (81a:10021)
 El-Sharkaway, N. G. (with John, Hermann Arthur; King, R. C.) New integral bases for symmetric functions. (81h:05007)
 Ewell, John A. Recurrences for two restricted partition functions. (81f:10021)
 Gansner, Emden R. On the equality of two plane partition correspondences. (81g:05010)
 Gupta, Hansraj Enumeration of incongruent cyclic k -gons. (81f:10022a)
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 King, R. C. See El-Sharkaway, N. G.; et al., (81h:05007)
 Lepowsky, James Application of the numerator formula to k -rowed plane partitions. (81f:17011)
 Leron, Uri (with Moran, Gadi) The full cycles in a Young coset. (81h:05077)
 Moore, Elmo A general nonexistence theorem in the theory of partitions. (81a:10022)
 Moran, Gadi See Leron, Uri, (81h:05077)
 Mullineux, G. On the p -cores of p -regular diagrams. (81a:20017)
 Polyzou, Wayne N. Combinatorics, partitions, and many-body physics. (81d:81126)
 Reis, Richard H. A formula for $C(T)$ in the paper: "Enumeration of incongruent cyclic k -gons" [Indian J. Pure Appl. Math. 10 (1979), no. 8, 964-999; MR 81f:10022a]. (81f:10022b)
 Schmidt, Diana A partition theorem for ordinals. (81d:04004)
 Strietz, H. Über Erzeugendengenen endlicher Partitionenverbände. (81k:06011)
 Wolfsohn, Kurt Über Partitionen endlicher Teilmengen. (English summary) (81h:04005)

05A19 Combinatorial identities

- Bressoud, David M. A generalization of the Rogers-Ramanujan identities for all moduli. 81c:05008
 Carlitz, Leonard A combinatorial identity and some generalizations. 81e:05023
 Carl, Robert Formules d'inversion de séries formelles. 81i:05022
 Garsia, Adriano M. On the "maj" and "inv" q -analogues of Eulerian polynomials. 81i:05017
 Goulden, I. P. A proof of Fisher's identity. 81e:05024
 Grosser, Michael Generalized powers and inversion of the series $\ln e_q(t)$. 81j:05023
 Jain, V. K. See Verma, Arun, 81j:05024
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 Wenzel, Robert S. Rediscovery and alternate proof of Gauss's identity. 81k:05012

- White, Dennis E. A Pólya interpretation of the Schur function. 81h:05018
 Zeilberger, Doron Some comments on Rota's umbral calculus. 81e:05025

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- Aschoff, Per Some combinatorial identities. (81f:05006)
 Bernstein, Leon Periodic algorithms and their application. (81a:10013)
 Carlitz, Leonard A note on some polynomial identities. (81k:10024)
 Garsia, Adriano M. (with Remmel, J. B.) A combinatorial interpretation of q -derangement and q -Laguerre numbers. (81g:05011)
 Grochowal, Bogusław The formulas for decomposition of projective and affine spaces. (81e:51012)
 Hirschhorn, Michael D. Two further Ramanujan pairs. (81j:05022)
 Howard, F. T. Bell polynomials and degenerate Stirling numbers. (81g:10027)
 Lepowsky, James Lie algebras and combinatorics. (81d:10015)
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 Wei, Wan Di Generalized principle of inclusion and exclusion and its applications. (81j:05021)
 White, Dennis E. Applications of a binomial-type identity. (81e:05021)
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- Ahlsvede, Rudolf (with Daykin, David E.) The number of values of combinatorial functions. 81a:05012
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- Canfield, E. Rodney Application of the Berry-Esséen inequality to combinatorial estimates. (81e:05012)
 Garsia, Adriano M. Some combinatorial methods in real analysis. (81f:26007)
 Harborth, Helko (with Mengersen, Ingrid) Ein Extremalproblem für Matrizen aus Nullen und Einsen. (81b:05023)
 Kuzjmin, N. N. Some recursive and asymptotic bounds in a covering problem. (Russian) (81c:05004)
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- Adikesavan, A. S. (with Narayanaswami, S.) A modification of Goka's binary sequence. 81k:05013
 Boccaro, G. Décompositions d'une permutation d'un ensemble fini en produit de deux cycles. 81c:05010
 Cairns, L. On a combinatorial game with an application to Go-moku. 81a:05013
 Ehrenfeucht, Andrzej (with Mycielski, Jan) On k -stable functions. 81e:05027
 Gallian, Joseph A. (with Rusin, David J.) Cycloic polynomials and nonstandard dice. 81a:05014
 Gonska, Heinz Herbert Zur Mathematisierung eines Polygonproblems. 81c:05011
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- Berstel, Jean Sur les mots sans carré définis par un morphisme. (English summary) (81j:68104)
 Mots sans carré et morphismes itérés. (English summary) (81e:68099)
 Bicknell-Johnson, Marjorie See Hoggatt, Vernon E., Jr.; et al., (81d:90112)
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 Golomb, Solomon W. On the classification of balanced binary sequences of period $2^n - 1$. (81k:94050)
 Gordon, A. D. A measure of the agreement between rankings. (81b:62073)
 Gordon, Dan Minimal determining sets of locally finitely-determined functionals. (81d:03045)
 Hindman, Neil Ultrafilters and combinatorial number theory. (81m:10019)
 Hoggatt, Vernon E., Jr. (with Bicknell-Johnson, Marjorie; Sarfield, Richard) A generalization of Wythoff's game. (81d:90112)
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 Orlik, Peter (with Solomon, Louis) Combinatorics and topology of complements of hyperplanes. (81c:32015)
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- Sin, Man Keung (with Tong, Po) Generation of some de Bruijn sequences. (81j:05041)
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- (McCarthy, David) See Tutte, William Thomas, (81k:01058a) and Tutte, William Thomas, (81k:01058b)
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- Arazo, Julian (with Tannenbaum, Peter) Minimal sets of conditions for balanced incomplete block designs. 81h:05021
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 Conjugate cyclic (v, k, λ) -configurations. 81g:05026
 Kageyama, Sampo Some block structure of certain FBB designs. 81g:05027
 Keenan, D. E. A Fisher-type inequality. 81e:05037
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 Mathur, S. N. See Sinha, Kishore; et al., 81f:05029
 McKay, Brendan D. (with Stanton, Ralph G.) Some graph-isomorphism computations. 81i:05029
 Mena, R. A. See Bridges, W. G., 81f:05021
 Miclants, W. On polarities of a class of divisible partial designs. 81e:05039
 Mills, W. H. A new 5-design. 81f:05026
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 Misra, B. L. (with Chandak, M. L.) On orthogonal mates of F -squares associated with PBIB designs of m -associate classes. 81g:05028
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 Mullin, Ronald C. A ring partition construction for BIBDs. (Spanish summary) 81a:05018
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 Raghavarao, D. (with Shrikhande, Mohan) A generalization of special partially balanced designs to higher associate class designs. 81g:05029
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 Saha, G. M. A construction of balanced arrays and some BIB designs therefrom. 81i:05030
 Schaefer, Martin On the existence of binary variance-balanced block designs. 81i:05031
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 Stanton, Ralph G. (with Vanstone, S. A.) Some theorems on DK-designs. 81j:05028
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 Tomčev, V. D. Designs with repeated blocks derived from rank 3 graphs. 81g:05031
 Vanstone, S. A. Doubly resolvable designs. 81f:05030
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 Yoshizawa, Mitsuo Block intersection numbers of block designs. 81i:05032
 On block-schematic Steiner systems $S(t, r+1, v)$. 81k:05018
 Zhang, Li Qian The parameter combinations of PBIB(2) designs with $k, r < 10$ for which the problem of existence has not yet been solved. (Chinese. English summary) 81m:05030
 Zhu, L. A construction for orthogonal Steiner triple systems. 81j:05027

secondary classifications:

- Arya, A. S. (with Narain, Prem) Partial diallel crosses based on some association schemes with three and four associate classes. (81m:62140)
 Bakalary, J. K. (with Dobek, A.; Kala, R.) A necessary condition for balance of a block design. (German summary) (81h:62134)
 Bennett, F. E. (with Mendelsohn, N. S.) On the spectrum of Stein quasigroups. (81g:20129)
 Biggs, Norman Some odd graph theory. (81c:05026)
 Bradley, Ralph A. (with Yeh, Ching Ming) Trend-free block designs: theory. (81j:62150)
 Cameron, Peter J. (with Goethals, Jean-Marie; Seidel, J. J.) Strongly regular graphs having strongly regular subconstituents. (81d:05034)
 Chandak, M. L. On the block structure of PBIB designs. (81h:62135)
 Chawathe, P. D. A geometry associated with the Steiner system $S(24, 8, 5)$. (81e:20002)
 Cheng, Ching Shui Construction of Youden hyperrectangles. (81a:62000)
 Dean, A. M. (with Lewis, S. M.) A unified theory for generalized cyclic designs. (81j:62152)
 Di Paola, J. W. (with Nemeth, E.) Applications of parallelisms. (81g:05091)
 Dobek, A. See Bakalary, J. K.; et al., (81h:62134)
 Goethals, Jean-Marie See Cameron, Peter J.; et al., (81d:05034)
 Hedayat, A. (with Li, Shuo-Yen Robert) The trade-off method in the construction of BIB designs with variable support sizes. (81b:62092)
 Jungnickel, Dieter A construction of group divisible designs. (81d:05016)
 Kageyama, Sampo Conditions for α -resolvability and affine α -resolvability of incomplete block designs. (81m:62141)
 Kala, R. See Bakalary, J. K.; et al., (81h:62134)
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- Lewis, S. M. See Dean, A. M., (81j:62152)
- Li, Shao-Yen Robert See Hedayat, A., (81h:62092)
- Liu, Wan Ru Sixteen PBIB(2) designs for which $k < 10$ and $r < 10$. (Chinese. English summary) (81j:62154)
- Mendelsohn, N. S. See Bennett, F. E., (81g:20129)
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- Nemeth, E. See Di Paola, J. W., (81g:05091)
- Novák, Jiří On certain minimal systems of k -tuples. (French summary) (81b:05067)
- Pitz, Günter Near-rings: theory and applications. (Italian. English summary) (81d:16028)
- de Resmini, Mariatuisa J. On congruences on Steiner ternary algebras. A class of resolvable SQSs. (Italian summary) (81h:51004)
- Rosen, Cornelia Some results on t -constant codes. (81m:94022)
- Saha, G. M. See Sinha, Kishore, (81g:62132)
- Scherer, Jennifer Some remarks on generalised Hadamard matrices and theorems of Rajkundlia on SBIBDs. (81g:05035)
- Seldin, J. J. See Cameron, Peter J.; et al., (81d:05034)
- Shrikura, Teruhiko Necessary and sufficient condition for a balanced array of strength 2/1 to be a balanced fractional 2^m factorial design of resolution 2I. (81j:62134)
- Shrikhande, S. S. (with Singhi, N. M.) Some problems in graph theory. (81a:05105)
- Singhi, N. M. See Shrikhande, S. S., (81a:05105)
- Sinha, Kishore (with Saha, G. M.) On the construction of balanced and partially balanced ternary design. (81g:62132)
- Spyros, L. P. Properties of certain classes of experimental block designs and correlation characteristics of observations. (81a:62081)
- Yamazaki, Yohel The theory of division games. (Japanese) (81b:90160)
- Yeh, Ching Ming See Bradley, Ralph A., (81j:62150)
- Zhu, L. A pair of orthogonal Steiner systems $S(3, 5, 17)$. (81i:05047)
- 05B07 Steiner triple systems
- 05B10 Difference sets (number-theoretic, group-theoretic, etc.) [See also 10L05.]
- Camion, Paul ★Difference sets in elementary abelian groups. 81e:05042
- Isbell, John R. Perfect addition sets. 81m:05031
- Kotzig, Anton (with Turgeon, Jean M.) Perfect systems of difference sets and additive sequences of permutations. 81d:05012
- Salzborn, F. (with Szekeres, G.) A problem in combinatorial group theory. 81h:05021
- Stanton, Dennis Some Erdős-Ko-Rado theorems for Chevalley groups. 81h:05027
- Sukeres, G. See Salzborn, F., 81h:05021
- Turgeon, Jean M. See Kotzig, Anton, 81d:05012
- secondary classifications:
- Berndt, Bruce C. (with Evans, Ronald J.) Sums of Gauss, Jacobi, and Jacobsthal. (81j:10054)
- Carmona, Lowell A. t -designs admitting automorphisms. (81f:05022)
- Chrátal, V. (with Graham, Ronald L.; Perold, André F.; Whitesides, S. H.) Combinatorial designs related to the strong perfect graph conjecture. (81h:05044)
- Drake, David A. (with Jungnickel, Dieter) Das Existenzproblem für projektive (8, 5)-Hjelmslevbenen. (81m:05012)
- Evans, Ronald J. See Berndt, Bruce C., (81j:10054)
- Furno, Anne L. A bound on Kaprekar constants. (81h:10011b)
- See also Lapenta, J. F.; et al., (81h:10011a)
- Graham, Ronald L. See Chrátal, V.; et al., (81h:05044)
- Jungnickel, Dieter See Drake, David A., (81m:05012)
- Kundert, Easay George Basis in a certain completion of the s - d -ring over the rational numbers. (Italian summary) (81j:13026a)
- Basis in a certain completion of the s - d -ring over the rational numbers. II. (Italian summary) (81j:13026b)
- Lapenta, J. F. (with Furno, Anne L.; Prichett, G. D.) An algorithm to determine self-producing r -digit g -adic integers. (81h:10011a)
- Mullin, Ronald C. A ring partition construction for BIBDs. (Spanish summary) (81a:05018)
- Perold, André F. See Chrátal, V.; et al., (81h:05044)
- Prichett, G. D. See Lapenta, J. F.; et al., (81h:10011a)
- Rao, K. Nageswara Some analogues of the Hall polynomial. (81d:10004)
- Tijlenda, R. Distance sets of sequences of integers. (81d:10050)
- Whitesides, S. H. See Chrátal, V.; et al., (81h:05044)
- Woffmann, Jacques Un problème d'extrémum dans les espaces vectoriels binaires. (English summary) (81m:94024)
- 05B15 Orthogonal designs, Latin squares, Room squares
- Andersen, L. D. (with Hilton, A. J. W.) Generalized Latin rectangles. 81k:05019
- (with Hilton, A. J. W.) Generalized Latin rectangles. I. Construction and decomposition. 81k:05020a
- (with Hilton, A. J. W.) Generalized Latin rectangles. II. Embedding. 81k:05020b
- (with Häggkvist, R.; Hilton, A. J. W.; Poucher, W. B.) Embedding incomplete Latin squares in Latin squares whose diagonal is almost completely prescribed. 81k:05033
- Anderson, B. A. A doubling construction for certain Howell designs. 81j:05029
- Hyperovals and Howell Designs. 81j:05030
- Bennett, F. E. (with Mendelsohn, N. S.) Conjugate orthogonal Latin square graphs. 81i:05034
- Browner, Andries E. ★On the existence of 30 mutually orthogonal Latin squares. 81d:05013
- A series of separable designs with application to pairwise orthogonal Latin squares. 81i:05035
- Bush, K. A. On Hadamard embeddability. 81g:05032
- Chang, Gerard J. Complete diagonals of Latin squares. 81g:05033
- Cheng, Ching Shui Orthogonal arrays with variable numbers of symbols. 81d:05014
- Crittenden, Richard (with Vanden Eynden, Charles) Completing partial Latin squares. 81j:05031
- Dinitz, Jeffrey H. New lower bounds for the number of pairwise orthogonal symmetric Latin squares. 81f:05031
- Freeman, G. H. Complete Latin squares and related experimental designs. 81m:05032
- Häggkvist, R. See Andersen, L. D.; et al., 81i:05033
- Heinrich, Katherine Pairwise orthogonal row complete Latin squares. 81m:05033
- Hilton, A. J. W. See Andersen, L. D.; et al., 81i:05033; Andersen, L. D. 81k:05019; Andersen, L. D. 81k:05020
- Hwang, F. K. Crisscross Latin squares. 81e:05043
- Jungnickel, Dieter On difference matrices and regular Latin squares. 81m:05034
- Kedwell, Anthony Donald Concerning the existence of triples of pairwise almost orthogonal 10×10 Latin squares. 81k:05021
- Kiel, Donald I. See Killgrove, Raymond B.; et al., 81c:05015
- Killgrove, Raymond B. (with Parker, E. T.; Kiel, Donald I.) Some combinatorial problems in the foundations of geometry. 81c:05015
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- Kramer, Earl S. (with Mesner, Dale M.) A special 52×52 Room-type design. 81e:05044
- (with Magliveras, Spyros S.) A $57 \times 57 \times 57$ Room-type design. 81e:05045
- (with Kreher, Donald L.; Magliveras, Spyros S.; Mesner, Dale M.) Coherent Room rectangles from permutation groups. 81j:05032
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- Lorimer, Peter A method of constructing mutually orthogonal Latin squares. 81g:05034
- Magliveras, Spyros S. See Kramer, Earl S., 81e:05045 and Kramer, Earl S.; et al., 81j:05032
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- Mullin, Ronald C. (with Schellenberg, P. J.; Stinson, Douglas; Vanstone, S. A.) Some results on the existence of squares. 81m:05036
- Neumaier, Arnold On transitive commutative idempotent quasigroups. 81c:05016
- Noda, Ryuzaburo On orthogonal arrays of strength 4 achieving Rao's bound. 81a:05019
- Parker, E. T. (with Killgrove, Raymond B.) A planar Latin square lacking automorphism. 81e:05046
- See also Killgrove, Raymond B.; et al., 81c:05015
- Phelps, K. T. Automorphism-free Latin square graphs. 81m:05037
- Poucher, W. B. See Andersen, L. D.; et al., 81i:05033
- Rosa, Alexander On generalized Room squares. (French summary) 81h:05028
- Generalized Howell designs. 81j:05033
- Schellenberg, P. J. See Mullin, Ronald C.; et al., 81m:05036
- Shrikhande, S. S. (with Singhi, N. M.) Embedding of orthogonal arrays of strength two and deficiency greater than two. 81h:05029
- Singhi, N. M. See Shrikhande, S. S., 81h:05029
- Smetaniuk, Bohdan On the minimal critical set of a Latin square. 81d:05015
- Stinson, Douglas On the existence of 30 mutually orthogonal Latin squares. 81a:05020
- A generalization of Wilson's construction for mutually orthogonal Latin squares. 81f:05032
- (with Wallis, W. D.) Some designs used in constructing skew Room squares. 81m:05038
- A general construction for group-divisible designs. 81m:05039
- See also Mullin, Ronald C.; et al., 81m:05036
- Vanden Eynden, Charles See Crittenden, Richard, 81j:05031
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- Wallis, W. D. Spouse-avoiding mixed doubles tournaments. 81m:05040
- See also Stinson, Douglas, 81m:05038
- Wells, Albert L., Jr. On the separation power and the completion of partial Latin squares. 81h:05030
- Wojtas, Mieczysław A note on mutually orthogonal Latin squares. (Polish and Russian summaries) 81k:05022
- secondary classifications:
- Abe, Gakuhō On "Gohōjin Hensū Jutzu (the methods of transformation of magic squares of order 5)". (Japanese) (81c:01006)
- Barnabei, Marianna (with Nicoletti, Giorgio) An interactive program for finite incidence structures. (81m:05002)
- Blake, Ian F. See Safavi-Naini, R., (81m:05029)
- Chandak, M. L. (with Misra, B. L.) On existence of orthogonal mates of F -squares associated with PBIB designs of two associate classes. (81k:62104)
- Charalambides, Ch. A. A problem of arrangements on chessboards and generalizations. (81a:05006)
- Chopra, D. V. On the row complete property of balanced arrays. (81h:62138)
- Colma, J. On the plane term rank of three-dimensional matrices. (81c:05017)
- Drake, David A. Partial λ -geometries and generalized Hadamard matrices over groups. (81k:05031)
- Ganter, B. (with Mathon, R.; Rosa, Alexander) A complete census of $(10, 3, 2)$ -block designs and of Mendelsohn triple systems of order ten. I. Mendelsohn triple systems without repeated blocks. (81h:05020a)
- (with Mathon, R.; Rosa, Alexander) A complete census of $(10, 3, 2)$ -block designs and of Mendelsohn triple systems of order ten. II. Mendelsohn triple systems with repeated blocks. (81h:05020b)
- Hausmann, Dirk (with Korte, Bernhard) Colouring criteria for adjacency on 0-1-polyhedra. (81c:05025)
- Hilton, A. J. W. The reconstruction of Latin squares with applications to school timetabling and to experimental design. (81j:90066)
- Hofte, Herbert Zur Konstruktion von magischen Quadraten. (81f:05045)
- Korte, Bernhard See Hausmann, Dirk, (81c:05025)

- Kramer, Earl S. (with Magliveras, Spyros S.; Mesner, Dale M.) Some resolutions of $S(5, 8, 24)$. (81j:05039)
- Magliveras, Spyros S. See Kramer, Earl S.; et al., (81j:05039)
- Mathon, R. See Ganter, B.; et al., (81b:05020a) and (81b:05020b)
- Mesner, Dale M. See Kramer, Earl S.; et al., (81j:05039)
- Mitra, B. L. See Chandak, M. L., (81k:62104)
- Mullen, Gary L. Local permutation polynomials over Z_p . (81h:05006)
- Nicoletti, Giorgio See Barnabei, Marianna, (81m:05002)
- Phelps, K. T. Latin square graphs and their automorphism groups. (81e:05082)
- Rosa, Alexander See Ganter, B.; et al., (81b:05020a) and Ganter, B.; et al., (81b:05020b)
- Safavi-Naini, R. (with Blake, Ian F.) Generalized t -designs and orthogonal arrays. (81m:05029)
- Saha, G. M. A construction of balanced arrays and some BIB designs therefrom. (81i:05030)
- Saltzborn, F. (with Szekeres, G.) A problem in combinatorial group theory. (81b:05021)
- Seberry, Jennifer (with Whiteman, Albert Leon) Complex weighing matrices and orthogonal designs. (81h:05036)
- A construction for generalized Hadamard matrices. (81m:05047)
- Stinson, Douglas The distance between units in rings—an algorithmic approach. (81i:10009)
- Szekeres, G. See Saltzborn, F., (81b:05021)
- Whiteman, Albert Leon See Seberry, Jennifer, (81h:05036)

05B20 Matrices (incidence, Hadamard, etc.)

- Agaian, S. S. (with Sarukhanian, A. G.) A note on the construction of Hadamard matrices. (See 80a:68001)
- Aharoni, Ron A problem in rearrangements of $(0, 1)$ matrices. 81i:05036
- Amice, R. P. Properties of $(0, 1)$ -matrices with no triangles. 81j:05034
- Bazelow, Alexander R. (with Brickle, Frank) A combinatorial problem in music theory—Babbitt's partition problem. I. 81k:05023a
- (with Brickle, Frank) A combinatorial problem in music theory—Babbitt's partition problem. II. 81k:05023b
- Brickle, Frank See Bazelow, Alexander R., 81k:05023a and Bazelow, Alexander R., 81k:05023b
- Bridges, W. G. (with Mena, R. A.) Rational circulants with rational spectra and cyclic strongly regular graphs. 81b:05022
- Brown, David P. Compound connection matrices. 81m:05041
- Chrystal, V. Recognizing intersection patterns. 81k:05024
- Colma, J. On the plane term rank of three-dimensional matrices. 81c:05017
- Das, Shrawpna Kumar An Euler-Poincaré characteristic for the open set lattices of finite topologies. 81a:05021
- Dehon, Michel Ranks of incidence matrices of t -designs $S_\lambda(t, t+1, v)$. 81m:05042
- Deza, M. Finite commutative Moufang loops, related matroids, and association schemes. 81m:05043
- Drake, David A. Partial λ -geometries and generalized Hadamard matrices over groups. 81h:05031
- Enomoto, Hiroe (with Miyamoto, Masahiko) On maximal weights of Hadamard matrices. 81m:05044
- Harborth, Helko (with Mengersen, Ingrid) Ein Extremalproblem für Matrizen aus Nullen und Einsen. 81b:05023
- Ito, Noboru Note on Hadamard matrices of Pless type. 81m:05045
- Leon, Jeffrey S. An algorithm for computing the automorphism group of a Hadamard matrix. 81f:05033
- Little, Charles H. C. (with Thumte, David J.) Complete bipartite graphs and the Hadamard conjecture. 81f:05034
- Longyear, Judith Q. There is one Hadamard matrix of order 24 and both characters 1. 81h:05032
- There are nine different skew-equivalent Hadamard matrices of order 24. 81m:05046
- McKay, Brendan D. Hadamard equivalence via graph isomorphism. 81e:05047
- Mena, R. A. See Bridges, W. G., 81b:05022
- Mengersen, Ingrid See Harborth, Helko, 81b:05023
- Miyamoto, Masahiko See Enomoto, Hiroe, 81m:05044
- Sarukhanian, A. G. See Agaian, S. S., (See 80a:68001)
- Seberry, Jennifer Some remarks on generalised Hadamard matrices and theorems of Rajkundia on SBIBDs. 81g:05035
- Some infinite classes of Hadamard matrices. 81f:05035
- A construction for generalized Hadamard matrices. 81m:05047
- Srivastava, Jagdish N. On the linear independence of sets of 2^t columns of certain $(1, -1)$ matrices with a group structure, and its connection with finite geometries. 81b:05024
- (Starr, Daniel) See Bazelow, Alexander R.; et al., 81k:05023a
- Street, Deborah J. Generalized Hadamard matrices, orthogonal arrays and F -squares. 81h:05037
- Bhaskar Rao designs from cyclotomy. 81m:05048
- Thumte, David J. See Little, Charles H. C., 81f:05034
- Verheiden, Eric Integral and rational completions of combinatorial matrices. II. 81a:05022
- Yamada, Miesko On the Williamson type j matrices of orders 4-29, 4-41, and 4-37. 81f:05036

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- Araoz, Julian (with Tannenbaum, Peter) Minimal sets of conditions for balanced incomplete block designs. (81h:05021)
- Brualdi, Richard A. (with Hedrick, Mark B.) A unified treatment of nearly reducible and nearly decomposable matrices. (81g:15016)
- Matrices of 0's and 1's with total support. (81g:15023)
- (with Ross, Jeffrey A.) On Ryser's maximum term rank formula. (81e:15008)

- Evans, Ronald J. Note on intersections of translates of powers in finite fields. (81m:10074)
- Friedland, Shmuel A lower bound for the permanent of a doubly stochastic matrix. (81i:15006)
- Haemers, Willem ★ Eigenvalue techniques in design and graph theory. (81i:05003)
- Hedrick, Mark B. See Brualdi, Richard A., (81g:15016)
- Ho, Noboru Hadamard matrices with "doubly transitive" automorphism groups. (81m:20006)
- Jungnickel, Dieter On the congruence relations of regular Klingenberg structures. (81b:05025)
- On difference matrices, resolvable transversal designs and generalized Hadamard matrices. (81k:05032)
- Kanetkar, Sharad V. (with Wagh, Meghanad D.) On construction of matrices with distinct submatrices. (81g:15018)
- Lam, Clement W. H. Distance transitive digraphs. (81f:05086)
- Mathur, S. N. See Sinha, Kishore; et al., (81f:05029)
- Merriell, David The maximum permanent in A_n^+ . (81j:15009)
- Neumaker, Arnold Distances, graphs and designs. (81k:05039)
- Nigam, A. K. See Sinha, Kishore; et al., (81f:05029)
- Ross, Jeffrey A. See Brualdi, Richard A., (81e:15008)
- Ryser, H. J. A theorem in combinatorial matrix theory. (81i:15013)
- Saunders, B. David (with Schneider, Hans) Applications of the Gordan-Stiemke theorem in combinatorial matrix theory. (81e:15009)
- Schaefer, Martin On the existence of binary variance-balanced block designs. (81i:05031)
- Schneider, Hans See Saunders, B. David, (81e:15009)
- Sinha, Kishore (with Mathur, S. N.; Nigam, A. K.) Kronecker sum of incomplete block designs. (81f:05029)
- Tannenbaum, Peter See Araoz, Julian, (81h:05021)
- Wagh, Meghanad D. See Kanetkar, Sharad V., (81g:15018)
- Ward, James E., III Vector spaces of magic squares. (81f:05050)
- Wells, Albert L., Jr. On the separation power and the completion of partial Latin squares. (81h:05030)

05B25 Finite geometries [See also 51D20, 51Exx.]

- Bachmann, O. On rank 3 projective designs. 81i:05038
- Bartocci, Umberto (with Faina, Giorgio) Closed arcs of a finite projective plane. (Italian. English summary) 81c:05048
- Bénéteau, Lucien Topics about 3-Moufang loops and Hall triple systems. 81j:05035
- Bruen, A. A. (with Rothschild, Bruce L.) Characterizing subspaces. 81g:05036
- (with Rothschild, Bruce L.; van Lint, J. H.) On characterizing subspaces. 81i:05039
- Bryant, V. W. (with Dawson, Jeremy E.; Perfect, Hazel) Hereditary circuit spaces. 81g:05037
- Brylawski, Tom Intersection theory for embeddings of matroids into uniform geometries. 81i:05040
- de Clerck, F. Partial geometries—a combinatorial survey. 81k:05025
- Datta, Biswa Tosh On Tutte's conjecture for tangential 2-blocks. 81c:05018
- Dawson, Jeremy E. See Bryant, V. W.; et al., 81g:05037
- Debroey, Ingrid Semipartial geometries. 81k:05026
- Drake, David A. (with Freeman, J. W.) Partial t -spreads and group constructible (s, r, μ) -nets. 81c:05019
- Faina, Giorgio See Bartocci, Umberto, 81c:05048
- Fisher, J. Chris (with Thas, Joseph A.) Flocks in $PG(3, q)$. 81a:05023
- Freeman, J. W. See Drake, David A., 81c:05019
- Hauptmann, Wolfgang Kohärente Konfigurationen, quasilineare Räume und distanz-reguläre Graphen. 81i:05041
- Jungnickel, Dieter On TD-structures. 81j:05036
- On the congruence relations of regular Klingenberg structures. 81b:05025
- A construction of group divisible designs. 81d:05016
- Kászonyi, L. A characterisation of binary geometries of types $K(3)$ and $K(4)$. 81k:05007
- Kiel, Donald I. See Killgrove, Raymond B.; et al., 81j:05037 and Killgrove, Raymond B., 81m:05049
- Killgrove, Raymond B. (with Kiel, Donald I.; Koch, C. L.) Arcs, conics, and ovals. 81j:05037
- (with Kiel, Donald I.) Completions of quadrangles, revisited. 81m:05049
- See also Parker, E. T., 81k:05029
- Koch, C. L. See Killgrove, Raymond B.; et al., 81j:05037
- Laskar, Renu Partial d -space: preliminary report. 81d:05017
- Las Vergnas, Michel Extensions ponctuelles compatibles d'une géométrie combinatoire. (English summary) 81e:05049
- Leemans, H. Characterization of a class of designs on a $(q+1)$ -ary alphabet. 81i:05040
- van Lint, J. H. See Bruen, A. A.; et al., 81i:05039
- Lovász, László Selecting independent lines from a family of lines in a space. 81k:05028
- Mazzocca, Francesco (with Olanda, Domenico) Ruled systems in combinatorial spaces. (Italian. English summary) 81i:05043
- Mullin, Ronald C. (with Vanstone, S. A.) Embedding the pseudocomplement of a quadrilateral in a finite projective plane. 81f:05037
- Olanda, Domenico See Mazzocca, Francesco, 81i:05043
- de Paris, Gennaro (with Volzone, Gaetano) Block systems of a class of incidence structures. (Italian. English summary) 81i:05044
- Parker, E. T. (with Killgrove, Raymond B.) Nonexistence of new order-9 projective plane with order-13 collineation. 81k:05029
- Perfect, Hazel See Bryant, V. W.; et al., 81g:05037
- Piper, F. Unitary block designs. 81i:05045
- Rothschild, Bruce L. See Bruen, A. A., 81g:05036 and Bruen, A. A.; et al., 81i:05039
- Tallini, Giuseppe Combinatorial spaces and Steiner systems. (Italian. English summary) 81m:05050
- Teirlinck, Luc On projective and affine hyperplanes. 81j:05038

Tharbare, Suresh K. Symmetric regular GD designs and finite projective planes. 81f:05038

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A restriction on the parameters of a suboctagon. 81m:05050

Partial three-spaces in finite projective spaces. 81m:05051

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Vanstone, S. A. See Mullin, Ronald C. 81f:05037

Volkone, Gaetano See de Paris, Gennaro. 81f:05044

Yanushka, A. A restriction on the parameters of a suboctagon. 81b:05026

secondary classifications:

Bonetti, Flavio (with Lunardon, Guglielmo) Central translation S -space. (81k:51006)

Chapman, C. R. J. When a fabric hangs together. (81g:51012)

Cooperstein, Bruce N. The geometry of root subgroups in exceptional groups. I. (81e:20022)

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 Goldberg, Michael Some overlooked convex polyhedral space-fillers. (81i:52012)
 Grünbaum, Branko (with Shephard, G. C.) Tilings with congruent tiles. (81k:51014)
 Klarner, David A. (with Pollack, Jordan) Domino tilings of rectangles with fixed width. (81k:05008)
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- Bennett, F. E. (with Mendelsohn, N. S.) Conjugate orthogonal Latin square graphs. (81i:05034)
- (Berger, Claude) See Golumbic, Martin Charles, (81e:68081)
- Blanc, Georges Théories égalitaires dans les langages sur types de graphes. (81f:18007)
- Chinn, Phyllis Z. (with Hedetniemi, Stephen T.; Mitchell, Sandra L.) Multiple-message broadcasting in complete graphs. (81g:94064)
- Cliff, Andrew (with Haggitt, Peter; Ord, Keith) Graph theory and geography. (See 81h:05050)
- Cocan, Moise A method of classifying the states of a Markov chain. (Romanian. German summary) (81m:60124)
- Cunningham, William H. (with Marsh, A. B., III) A primal algorithm for optimum matching. (81a:68067)
- Dion, Jean-Guy (with Raynaud, H.) Quelques nouvelles conditions suffisantes pour qu'une vidange soit forte. (English summary) (81f:60018)
- Dürfler, Willibald A complete lattice in graph theory. (81a:06005)
- Ebert, Jürgen Endliche Church-Rosser-Operatoren auf Graphen und ein Intervall-Algorithmus. (English summary) (81a:68068)
- Everett, C. J. See Stein, Paul R., (81j:05019)
- Fleischer, Herbert (with Bazelow, Alexander R.) Representations of finite partial orderings by binary codes combined with sequential decision mechanisms with applications to digital fault diagnosis. (81b:94078)
- Frank, Ove Moment properties of subgraph counts in stochastic graphs. (81c:62018)
- Sampling and inference in a population graph. (French summary) (81f:62027)
- Estimation of the number of vertices of different degrees in a graph. (81j:62027)
- Franken, Ole Immanuel On measurements and their group-theoretical foundation. (See 80b:00004)
- Fukunaga, Makoto Fixed points of elementary subgroups of Chevalley groups acting on trees. (81k:17003)
- Gavril, Fănică A recognition algorithm for the total graphs. (81j:68079)
- Golumbic, Martin Charles ★ Algorithmic graph theory and perfect graphs. (81e:68081)
- Gondran, Michel Classification hiérarchique et flots dans un graphe. (English summary) (81j:90048)
- Guan, Mei Gu A brief survey of research works on network theory by Chinese mathematicians. (81i:90074)
- Gupta, Hansraj On cycles of k integers. (81g:05004)
- Gutman, Ivan On graph-theoretical polynomials of annulenes and radialenes. (81h:92032)
- Haggitt, Peter See Cliff, Andrew; et al., (See 81h:05050)
- Hammersley, J. M. A generalization of McDiarmid's theorem for mixed Bernoulli percolation. (81g:60101)
- Hauptmann, Wolfgang Kohärente Konfigurationen, quasiaffine Räume und

distanz-reguläre Graphen. (81i:05041)

Hedetniemi, Stephen T. See Chinn, Phyllis Z.; et al. (81g:04064)

Herre, Heinrich Modelltheoretische Eigenschaften endlichvalenter Graphen. (81k:03031)

Hirgü, N. I. See Ivašenko, P. A., (81j:93012)

Hobbs, Arthur M. Powers of graphs, line graphs, and total graphs. (81f:05117)

Inakal, Thomas (with Weinberg, Louis) Graph-realizability of matroids. (81m:05056)

Ivanov, V. I. Certain possibilities of dynamic data structuring. (81e:68116)

Ivašenko, P. A. (with Hirgü, N. I.) Ulam's conjecture. (Russian) (81j:93012)

Janowitz, M. F. Monotone equivariant cluster methods. (81i:62106)

Jenkinson, T. A. (with Mayberry, J. P.) The skeleton of an impartial game and the Nim-function of Moore's Nim_k. (81h:90140)

Joseph, James E. θ -closure and θ -subclosed graphs. (81b:54013)

Kelmans, A. K. Concept of a vertex in a matroid and 3-connected graphs. (81f:05056)

Kerber, Adalbert Counting isomers and such. (81c:81080)

Lins, Sôstenes A sequence representation for maps. (81h:68057)

(Lobenberg, M.) See Picard, Claude François, (81j:94017)

Loré, Michel On matroidal families. (81a:05029)

Labell, David (with Volponi, Allan J.) Primitivity of relations. (French summary) (See 80e:05005)

Marsh, A. B., III See Cunningham, William H., (81a:68067)

Matthews, Laurence R. Infinite subgraphs as matroid circuits. (81e:05056)

Mayberry, J. P. See Jenkinson, T. A., (81h:90140)

McDiarmid, Colin General percolation and random graphs. (81m:60179)

Mendelsohn, N. S. See Bennett, F. E., (81i:05034)

Minty, George J. On maximal independent sets of vertices in claw-free graphs. (81f:68076)

Mitchell, Sandra L. See Chinn, Phyllis Z.; et al., (81g:04064)

Naddef, D. (with Sbihi, Najiba; Tchuente, M.) Independence systems with continuous cardinality of bases. (81g:05048)

Neaderhouser, Carla C. (with Purdy, George B.) Threshold functions for random hypergraphs. (81k:05079)

Ng, C. T. Measures of information with the branching property over a graph and their representations. (81c:94012)

Ord, Keith See Cliff, Andrew; et al., (See 81h:05050)

Phan Đình Diêu Some investigations on finite graphs and their applications. (81e:68033)

Picard, Claude François ★Graphs and questionnaires. (81j:94017)

Piatnickaja, G. N. (with Sinicyn, I. G.) Infinite turnpikes in a graph and optimal placement of figures of the same type in an infinite narrow strip. (Russian) (81d:52013)

Pritsker, A. Alan B. See Sigal, C. Elliott; et al., (81i:90078)

Pudlák, Pavel (with Tůma, Jiří) Every finite lattice can be embedded in a finite partition lattice. (81e:06013)

Purdy, George B. See Neaderhouser, Carla C., (81k:05079)

Raynaud, H. See Dion, Jean-Guy, (81f:60018)

Roos, Cornelis An alternative proof of the Feit-Higman theorem on generalized polygons. (81j:05049)

Rouvray, Dennis H. (with Balaban, Alexandru T.) Chemical applications of graph theory. (See 81h:05050)

Šaripova, M. M. Properties of graphs of code intersections. (Russian) (81j:94049)

Sbihi, Najiba See Naddef, D.; et al., (81g:05048)

Seese, Detlef G. Some graph-theoretical operations and decidability. (81j:03028)

Shiloach, Yossi See Aspwall, Bengt, (81m:65043)

Sigal, C. Elliott (with Pritsker, A. Alan B.; Solberg, James J.) The stochastic shortest route problem. (81i:90078)

Sinicyn, I. G. See Piatnickaja, G. N., (81d:52013)

Smith, D. H. Perfect codes in the graphs O_k and $L(O_k)$. (81k:04033)

Solberg, James J. See Sigal, C. Elliott; et al., (81i:90078)

Spircu, Tiberiu See Tüvisi, L.; et al., (81e:90030)

Stein, Paul R. (with Everett, C. J.) On a class of linked diagrams. II. Asymptotics. (81j:05019)

Stojaković, Mirko Elementary transformations and determinants. (Serbo-Croatian. English summary) (81k:15009)

Stepieniec, A. A. Level representation of a graph in a single layer routing problem. (81d:94050)

Tagadi, Al. See Tüvisi, L.; et al., (81e:90030)

Tchuente, M. See Naddef, D.; et al., (81g:05048)

Temperley, H. N. V. Lattice models in discrete statistical mechanics. (See 81h:05050)

Graph theory and continuum statistical mechanics. (See 81h:05050)

Tomková, Mária On a local property of the unoriented graph of a modular multilattice. (Russian summary) (81k:06005)

Tüvisi, L. (with Spircu, Tiberiu; Tagadi, Al.) Economic system structure hierarchization. (French and Russian summaries) (81e:90030)

Tucker, Alan C. An efficient test for circular-arc graphs. (81a:68074)

Tůma, Jiří See Pudlák, Pavel, (81e:06013)

Tuschik, Hans-Peter A reduction of a problem about ω_1 -categoricity. (81d:03033)

Volponi, Allan J. See Labell, David, (See 80e:05005)

Weinberg, Louis See Inakal, Thomas, (81m:05056)

Yau, Stephen Shing Young Hypersurface weighted dual graphs of normal singularities of surfaces. (81a:32009)

secondary classifications:

Roberts, Fred S. ★Measurement theory. (81b:90003)

06-02 Advanced exposition (research surveys, monographs, etc.)

06-03 Historical (must also be assigned at least one classification number from Section 01)

06-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Berman, Joel (with Wolk, Barry) Free lattices in some small varieties. (81i:06009)

Wolk, Barry See Berman, Joel, (81i:06009)

06-06 Proceedings, conferences, etc.

(Ball, Richard N.) See Ordered groups, 81m:06001

(Kenny, G. Otis) See Ordered groups, 81m:06001

(Smith, Jo E.) See Ordered groups, 81m:06001

Boise, Idaho ★Ordered groups, 81m:06001

Conference:

Ordered Groups ★Ordered groups, 81m:06001

Ordered groups ★Ordered groups, 81m:06001

secondary classifications:

Abstracts:

Seminar on Universal Algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:08001)

Baku ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:08001)

Seminar:

Universal Algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:08001)

Universal algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:08001)

06Axx Ordered sets

06A05 Total order

secondary classifications:

Herre, Heinrich (with Wolter, Helmut) Entscheidbarkeit der Theorie der linearen Ordnung in Logiken mit Mächtigkeitsquantoren bzw. mit Chang-Quantor. (81a:03010)

Kaluza, Theodor Äquivalenz einer Variante des Satzes von Ramsey mit einem Satz über Folgen in geordneten Mengen. (81i:05020)

Kulpa, Władysław A factorization theorem for GO-spaces. (81e:54028)

Kutunokov, P. A. Questions of definability in ordered sets. (Russian. English summary) (81g:03038)

Landratitis, Charles K. $L_{\omega,\omega}$ equivalence between countable and uncountable linear orderings. (81j:03056)

Laver, Richard Linear orders in ω^* under eventual dominance. (81e:03051)

Pinus, A. G. Weak commutativity of scattered summation of linear orders. (Russian) (81h:04003)

Tuschik, Hans-Peter On the decidability of the theory of linear orderings with generalized quantifiers. (81m:03016)

Wolter, Helmut See Herre, Heinrich, (81a:03010)

06A10 Partial order

Bačlawski, Kenneth (with Björner, Anders) Fixed points in partially ordered sets. 81c:06001

Cohen-Macaulay ordered sets. 81m:06002

Björner, Anders Shellable and Cohen-Macaulay partially ordered sets. 81i:06001

See also Bačlawski, Kenneth, 81c:06001

Bol'sakov, V. I. The number of equivalence classes of order-preserving mappings of partially ordered sets. (Russian. English summary) 81j:06001

Chung, F. R. K. (with Fishburn, Peter C.; Graham, Ronald L.) On unimodality for linear extensions of partial orders. 81m:06003

Czelakowski, Janusz On σ -orthodistributivity. 81i:06002

Dacé, R. Fixed points of antitone mappings in conditionally complete partially ordered sets. 81f:06001

Domingo, Xavier On order and betweenness compatibility. 81a:06001

Duffus, Dwight (with Poguntke, Werner; Rival, Ivan) Retracts and the fixed point problem for finite partially ordered sets. 81h:06001

Fishburn, Peter C. See Chung, F. R. K.; et al., 81m:06003

Frank, András On chain and antichain families of a partially ordered set. 81m:06004

Gallier, Jean H. On the existence of optimal fixpoints. 81e:06001

Godowski, Radosław Disjunctivity and orthodistributivity in orthomodular posets. 81f:06003

Graham, Ronald L. See Chung, F. R. K.; et al., 81m:06003

Hagendorf, Jean Guillaume Extensions respectueuses de chaînes. 81c:06002

Hansen, D. J. An axiomatic characterization of multilattices. 81k:06001

Janowitz, M. F. Semiflat L -cluster methods. 81h:06002

(Kisilcyn, S. S.) See Sidorenko, A. F., 81e:06003

06-XX ORDER, LATTICES, ORDERED ALGEBRAIC STRUCTURES [See also 18B35.]

06-01 Elementary exposition, textbooks

Boulaye, G. See Kaufmann, A., 81d:06001

Kaufmann, A. (with Boulaye, G.) ★Théorie des treillis en vue des applications. (French) [Lattice theory in view of applications] 81d:06001

- Klaucová, Olga Pairs of multilattices defined on the same set. (Russian summary) 81m:06005
- Kovalev, M. M. (with Milanov, P. B.) Minimization of a discrete convex function on Jordan-Dedekind lattices. (Russian. English summary) 81k:06002
- Lawson, Jimmie D. The duality of continuous posets. 81k:06003
- Lindström, Bernt A partition of $L(3, n)$ into saturated symmetric chains. 81m:06006
- Markowsky, George The representation of posets and lattices by sets. 81k:06003
- Marlow, A. R. An extended quantum mechanical embedding theorem. 81f:06004
- Empirical topology: topologies from partially ordered sets. 81h:06003
- Milanov, P. B. See Kovalev, M. M., 81k:06002
- Neggers, Joseph Combinatorial symbols and finite posets. 81k:06004
- Perfect, Hazel Remarks on Dilworth's theorem in relation to transversal theory. 81e:06002
- Pinna, A. G. Existence of α -dimension of partial ord. (Russian) 81j:06002
- Pogutke, Werner See Duffus, Dwight; et al., 81h:06001
- Proctor, Robert A. (with Saks, Michael E.; Sturtevant, Dean G.) Product partial orders with the Sperner property. 81f:06005
- Reiterman, Jan A note to the ADJ's subset systems. 81e:06003
- Rival, Ivan See Duffus, Dwight; et al., 81h:06001
- Saks, Michael E. See Proctor, Robert A.; et al., 81f:06005
- Schmert, James H. Countable homogeneous partially ordered sets. 81g:06001
- Schneckenburger, Norbert Darstellungen halbgeordneter Mengen in Potenzmengenverbänden. 81f:06006
- Sidorenko, A. F. Letter to the editors: "Finite partially ordered sets and their corresponding permutation sets" [Mat. Zametki 4 (1968), 511-518; MR 39 #5430] by S. S. Kislicyn. (Russian) 81e:06003
- Sturtevant, Dean G. See Proctor, Robert A.; et al., 81f:06005
- Świątek, Piotr Some representation problems for semiorders. 81j:06003
- Szymańska-Bartman, M. Weak orthogonalities on a partially ordered set. 81a:06002
- Tomková, Mária On a local property of the unoriented graph of a modular multilattice. (Russian summary) 81k:06005
- West, Douglas B. A symmetric chain decomposition of $L(4, n)$. 81m:06007

secondary classifications:

- Arditti, Jean-Claude Partially ordered sets and their comparability graphs their dimension and their adjacency. (French summary) (See 80e:05005)
- Avraham, Uri Construction of a rigid Aronszajn tree. (81d:04004)
- Bogart, Kenneth P. Incidence codes of posets: Eulerian posets and Reed-Muller codes. (81m:06024)
- Chen, M. (with Habib, M.) The jump number of dags and posets: an introduction. (81m:05071)
- Chunqui, R. See Schwarze, M. G., (81g:90009)
- Eugeni, Franco (with Rizzi, Bruno) An incidence algebra on rational numbers. (Italian summary) (81k:10009)
- Flathburn, Peter C. Transitivity. (81b:90009)
- Frank, Ove Transitivity in stochastic graphs and digraphs. (81k:92057)
- Frey, L. Sur des penseurs anciens. Analogies et préférences. (English summary) (81b:92013)
- Garola, C. Propositions and orthocomplementation in quantum logic. (81f:81009)
- Gehrlein, William V. "Problem specialization" in mechanical decision processes. (French summary) (81k:90002)
- Griggs, Jerrold R. On chains and Sperner k -families in ranked posets. (81e:05006)
- Grimbaum, Branko Regularity of graphs, complexes and designs. (French summary) (81f:05060)
- Habib, M. See Chen, M., (81m:05071)
- Kabulov, A. V. Number of three-valued logic functions to correct sets of incorrect algorithms and the complexity of interpretation of the functions. (81k:03027)
- Kim, Ki Hang (with Roush, F. W.) Preferences on subsets. (81k:90010)
- Lenzi, Domenico Partially ordered sets and bases for the closed sets in topological spaces. (81a:54003)
- Lou, S. P. (with Pan, S. H.) Fuzzy structure. (81j:54012)
- Mägerl, G. (with Namioka, I.) Intersection numbers and weak* separability of spaces of measures. (81j:28022)
- Manaster, Alfred B. (with Rosenstein, Joseph G.) Two-dimensional partial orderings: recursive model theory. (81d:03047a)
- (with Rosenstein, Joseph G.) Two-dimensional partial orderings: undecidability. (81d:03047b)
- Marr, J. M. (with Muenzenberger, T. B.) Betweenness in ordered spaces. (81a:54028)
- Meakin, John The partially ordered set of \mathcal{J} -classes of a semigroup. (81f:20084)
- Morkellinas, A. Decision-making indeterminacy with respect to lexicographic-type criteria. (Russian. Lithuanian and English summaries) (81k:90003)
- Muenzenberger, T. B. See Marr, J. M., (81a:54028)
- Namioka, I. See Mägerl, G., (81j:28022)
- Pan, S. H. See Lou, S. P., (81j:54012)
- Radermacher, F. J. Floats in project networks. (81j:90076)
- Richter, Marcel K. Continuous and semicontinuous utility. (81k:90018)
- Rival, Ivan Lattices and partially ordered sets. (French summary) (See 80e:05005)
- (with Sands, Bill) On the adjacency of vertices to the vertices of an infinite subgraph. (81i:05094)
- Rizzi, Bruno See Eugeni, Franco, (81k:10009)
- Rosenstein, Joseph G. See Manaster, Alfred B., (81d:03047a) and Manaster, Alfred B., (81d:03047b)
- Roush, F. W. See Kim, Ki Hang, (81k:90010)
- Rutička, Peter Time and space bounds in producing certain partial orders. (See 81k:68003)
- Saks, Michael E. Dilworth numbers, incidence maps and product partial orders. (81j:05025)
- Sands, Bill See Rival, Ivan, (81i:05094)
- Schwarze, M. G. (with Chunqui, R.) Axiomatizations for σ -additive measurement structures. (81g:90009)
- Shearer, James B. A simple counterexample to a conjecture of Rota. (81a:05009)
- Stanley, Richard P. Balanced Cohen-Macaulay complexes. (81e:05012)
- Unimodal sequences arising from Lie algebras. (81k:05011)
- Steinbuk, V. B. Semigroups of endomorphisms of systems of saturated chains. (Russian) (81m:20089)
- Šulka, Robert Remark on partially ordered sets, universal algebras and semigroups. (Russian summary) (81g:08004)

06A12 Semilattices [See also 20M10.]

- Ash, Chris Uniform labelled semilattices. 81c:06004
- Blyth, T. S. A coordinatisation of implicative (semi-)lattices by Baer semigroups. 81a:06003a
- See also Johnson, C. S., Jr., 81a:06003b
- Bulman-Fleming, Sydney (with Fleischer, Isidore) One-variable equational compactness in partially distributive semilattices with pseudocomplementation. 81f:06007
- Fajtlowicz, Siemion A property of the lattice of subsemilattices. 81d:06002
- Fleischer, Isidore Relatively pseudocomplemented semilattices amalgamate strongly. 81m:06008
- See also Bulman-Fleming, Sydney, 81f:06007
- Hickman, Robert Join algebras. 81k:06006
- Johnson, C. S., Jr. A note on: "A coordinatisation of implicative (semi-)lattices by Baer semigroups". 81a:06003b
- Lystad, Gurr S. (with Stralka, Albert R.) Semilattices having bialgebraic congruence lattices. 81i:06004
- Pastijn, Francis Semilattices with a transitive automorphism group. 81c:06005
- Ramana Murty, P. V. Prime and implicative semilattices. 81d:06003
- Romanowska, Anna On bisemilattices with one distributive law. 81d:06004
- Stepp, James W. Topological semilattices with enough closed subsemilattices to separate points. 81m:06009
- Stralka, Albert R. See Lystad, Gurr S., 81i:06004
- Swamy, U. Maddana Distributive semilattices. 81d:06005
- Tainakis, Constantine Brouwerian semilattices determined by their endomorphism semigroups. 81b:06001

secondary classifications:

- Bandyopadhyay, S. P. (with Chandra, Subha) Valuations in universal algebras. (81d:08002)
- Burgess, W. D. Completions of semilattices of cancellative semigroups. (81j:20085)
- Chandra, Subha See Bandyopadhyay, S. P., (81d:08002)
- Duda, Jaromir Congruences generated by filters. (81e:06011)
- Fattorosi-Barnaba, Maurizio Natural equivalences of topologies and semilattices. (Italian. English summary) (81e:54003)
- Földes, Stéphane On the complexity of the lattice embeddability problem. (81i:06010)
- Jones, Peter R. A band generated by two semilattices is regular. (81i:20078)
- Länger, Helmut Diagonal-commutative quasitrivial superassociative systems. (81a:08003)
- Lawson, Jimmie D. The duality of continuous posets. (81k:06003)
- Meakin, John Constructing biordered sets. (81k:20087)
- Nordahl, T. E. (with Scheiblich, H. E.) Projective bands. (81k:08007)
- Osondu, Kevin E. Homomorphisms of semilattices of semigroups. (81d:20053)
- Reynaeis, H. Semilattices of modules and the solvability of the functional equation $\sum_{i=1}^n h_i \times \varphi \circ g_i = h$. (81c:90009)
- Rosolini, Giuseppe Semilattices and frames in a topos. (Italian. English summary) (81i:03103)
- Scheiblich, H. E. See Nordahl, T. E., (81k:08007)

06A15 Galois correspondences, closure operators

- Barankin, Edward W. (with Takahasi, Koiti) Betweenness for real vectors and lines. II. Relatedness of betweenness. 81j:06004
- Brede, Manfred ★Über Erweiterungen von Galois-Korrespondenzen. (German) [On extensions of Galois correspondences] 81j:06005
- Edelman, Paul H. Meet-distributive lattices and the anti-exchange closure. 81c:06006
- Eplett, W. J. R. An additive representation for real functions on the product of a set and a lattice. 81j:06006
- Franci, Raffaella An observation on Galois correspondences. (Italian. English summary) 81e:06004
- Takahasi, Koiti See Barankin, Edward W., 81j:06004

secondary classifications:

- Bandelt, Hans-J. The tensor product of continuous lattices. (81j:06014)
- Faigle, Ulrich Geometries on partially ordered sets. (81m:05054)
- Lafaille, Ivan Rectangles maximaux dans une relation binaire quelconque. (81i:05077)

06A23 Complete lattices, completions

- Aumann, Georg Katastrophentheorie auf Verbänden. 81a:06004a
- Katastrophentheorie auf Verbänden. II. 81a:06004b
- Bishop, Alan A. On universal mappings and lattice completions. 81m:06010
- Dacić, R. Fixed points of antihomomorphisms. 81f:06002
- Dürfler, Willibald A complete lattice in graph theory. 81a:06005
- Esteve Massagué, Francisco Negations in complete lattices. (Spanish) 81m:06011
- Fleischer, Isidore On lattice completions as universal solutions. 81c:06007
- Gorbunov, V. A. Canonical decompositions in complete lattices. (Russian) 81e:06005
- Gresko, E. V. See Kurpel', M. S., 81m:06012
- Hakada, Jōsuke A Schröder-Bernstein theorem in Baer*-rings with lattice-theoretic proof. 81a:06006
- Janowitz, M. F. Note on the center of a lattice. 81i:06005

Kurpel', M. S. (with Gres'ko, E. V.) A generalization of A. Tarski's fixed-point theorem. (Russian) **81m:06012**

secondary classifications:

Aschcroft, Edward A. (with Fich, Faith E.) A generalized setting for fixpoint theory. (81d:68018)

Esteva, F. A characterization of complete atomic Boolean algebra. (81c:06016)

Fich, Faith E. See Aschcroft, Edward A., (81d:68018)

Markowsky, George The representation of posets and lattices by sets. (81k:06003)

06A99 None of the above, but in this section

Norris, Eugene M. The structure of an idempotent relation. **81c:06006**

Sturm, Theo Lattices of convex equivalences. (Russian summary) **81b:06002**

Vincke, Philippe Ordres et préordres totaux à distance minimum d'un quasi-ordre. **81d:06006**

secondary classifications:

Barthelemy, J. P. An asymptotic equivalent for the number of total preorders on a finite set. (81f:05011)

Hao, Nian Guo Two equivalent forms of Zorn's lemma. (Chinese. English summary) (81a:04003)

Kiruta, A. Ja. The theory of expected utility for intransitive preferences. (Russian) (81j:90017)

Mao-Colell, Andreu On revealed preference analysis. (81g:90006)

Podinovskii, V. V. The guaranteed result principle for particular preference relations. (Russian) (81h:90008)

Robson, J. C. Well quasi-ordered sets and ideals in free semigroups and algebras. (81h:20075)

Rosen, V. V. P-extension of games with quasiordered outcomes. (Russian) (81f:90124)

Schofield, Norman Instability of simple dynamic games. (81h:90014)

Svensson, Lars-Gunnar Equity among generations. (81j:90006)

06Bxx Lattices [See also 03G10.]

06B05 Structure theory

Chua, T. C. See Koh, Khee Meng, **81b:06003**

Dalik, Josef Strong elements in lattices. (Czech and Russian summaries) **81d:06007**

Fárcs, Gh. A refinement theorem for chains of standard elements. **81m:06013**

Herrmann, Christian On a condition sufficient for the distributivity of lattices of linear subspaces. **81c:06008**

Isbell, John R. Median algebra. **81i:06006**

Ježek, Jaroslav (with Slavík, Václav) Primitive lattices. (Russian summary) **81e:06007**

Koh, Khee Meng (with Chua, T. C.) A characterization of the lattice of convex sublattices of a finite lattice. **81b:06003**

Miller, David Metric postulates for modular, distributive, and Boolean lattices. **81a:06007**

Pogutke, Werner A note on semidistributive lattices. **81e:06008**

Rudeanu, Sergiu Fix points of lattice and Boolean transformation. **81i:06007**

Sales Valles, Francisco de A. Lattices complemented by sets. (Spanish) **81e:06009**

Sands, Bill Generating sets for lattices of dimension two. **81e:06010**

Schmidt, Elégus Tamás Remark on generalized function lattices. **81f:06008**

Slavík, Václav See Ježek, Jaroslav, **81e:06007**

secondary classifications:

Bollobás, Béla (with Rival, Ivan) The maximal size of the covering graph of a lattice. (81g:05088)

Freese, Ralph (with Nation, J. B.) Finitely presented lattices. (81a:06008)

Nation, J. B. See Freese, Ralph, (81a:06008)

Nieminen, Juhani A note on relations in distributive lattices. (Slovak and Russian summaries) (81a:06013)

Rival, Ivan See Bollobás, Béla, (81g:05088)

06B10 Ideals, congruence relations

Dorninger, Dietmar A note on local polynomial functions over lattices. **81m:06014**

Duda, Jaromír Congruences generated by filters. **81e:06011**

Katriňák, Tibor Essential and strong extensions of p -algebras. **81m:06015**

Lender, V. B. Replica trees on lattices. (Russian) **81e:06012**

secondary classifications:

Jones, Peter R. A band whose congruence lattice has ACC or DCC is finite. (81h:20078)

Munn, W. D. Decompositions of the congruence lattice of a semigroup. (81m:20082)

Nieminen, Juhani Products of graphs and congruence relations. (Serbo-Croatian summary) (81h:05113)

Varlet, J. C. A strengthening of the notion of essential extension. (French summary) (81g:08005)

06B15 Representation theory

Chajda, Ivan (with Dalík, Josef; Niederle, Josef; Veselý, Vítězslav; Zelinka, Bohdan) How to draw tolerance lattices of finite chains. **81k:06007**

Dalik, Josef See Chajda, Ivan; et al., **81k:06007**

Johnson, Johnny A. (with Raskin, John S.) Semigroups and lattices. **81i:06008**

Niederle, Josef See Chajda, Ivan; et al., **81k:06007**

Podlák, Pavel (with Tůma, Jiří) Every finite lattice can be embedded in a finite partition lattice. **81e:06013**

Raskin, John S. See Johnson, Johnny A., **81i:06008**

Tůma, Jiří See Podlák, Pavel, **81e:06013**

Veselý, Vítězslav See Chajda, Ivan; et al., **81k:06007**

Zelinka, Bohdan See Chajda, Ivan; et al., **81k:06007**

secondary classifications:

Batbedat, André Représentations sectionnelles des algèbres à produit. (English summary) (81k:18006)

Edelman, Paul H. Meet-distributive lattices and the anti-exchange closure. (81c:06006)

Nieminen, Juhani The lattice of connected subgraphs of a connected graph. (81f:05111)

06B20 Varieties of lattices

Berman, Joel (with Wolk, Barry) Free lattices in some small varieties. **81i:06009**

Chajda, Ivan A characterization of distributive lattices by tolerance lattices. **81e:06014**

Dorninger, Dietmar (with Eigenthaler, G.) Über den kanonischen Homomorphismus von Polynomverbänden. **81f:06009**

Eigenthaler, G. See Dorninger, Dietmar, **81f:06009**

Földes, Stéphane On the complexity of the lattice embeddability problem. **81i:06010**

Grätzer, George (with Kelly, David) On a special type of subdirectly irreducible lattice with an application to products of varieties. **81b:06004**

Jónsson, Bjarni (with Rival, Ivan) Lattice varieties covering the smallest nonmodular variety. **81j:06007**

Kelly, David See Grätzer, George, **81b:06004**

Lender, V. B. On \mathcal{R} -solvable lattices. (Russian) **81h:06008**

Nelson, Evelyn An elementary proof that there are no nontrivial injective lattices. **81c:06009**

Rival, Ivan See Jónsson, Bjarni, **81j:06007**

Ruckelshausen, W. Obere Nachbarn von $M_3 + N_5$. **81f:06010**

Wolk, Barry See Berman, Joel, **81i:06009**

secondary classifications:

Glass, A. M. W. (with Holland, W. Charles; McCleary, Stephen H.) The structure of l -group varieties. (81k:06026a)

Holland, W. Charles See Glass, A. M. W.; et al., (81k:06026a)

Ježek, Jaroslav (with Slavík, Václav) Primitive lattices. (Russian summary) (81e:06007)

McCleary, Stephen H. See Glass, A. M. W.; et al., (81k:06026a)

Slavík, Václav See Ježek, Jaroslav, (81e:06007)

Smith, Jo E. The lattice of l -group varieties. (81k:06026b)

06B25 Free lattices, projective lattices, word problems [See also 03D40, 08A50, 20F10.]

Day, Alan Characterizations of finite lattices that are bounded-homomorphic images of sublattices of free lattices. **81h:06004**

Freese, Ralph (with Nation, J. B.) Finitely presented lattices. **81a:06008**

Grätzer, George (with Hajnal, A.; Kelly, David) Chain conditions in free products of lattices with infinitary operations. **81b:06005**

Hajnal, A. See Grätzer, George; et al., **81b:06005**

Kelly, David See Grätzer, George; et al., **81b:06005**

Nation, J. B. See Freese, Ralph, **81a:06008**

Rival, Ivan (with Sands, Bill) Planar sublattices of a free lattice. I. **81f:06011a**

(with Sands, Bill) Planar sublattices of a free lattice. II. **81f:06011b**

Sands, Bill See Rival, Ivan, **81f:06011**

secondary classifications:

Dorninger, Dietmar (with Eigenthaler, G.) Über den kanonischen Homomorphismus von Polynomverbänden. (81f:06009)

Eigenthaler, G. See Dorninger, Dietmar, (81f:06009)

06B30 Topological lattices, order topologies [See also 06F30, 54F05, 54H12.]

Das Gupta, A. Representation of a lattice as a sublattice of the lattice of compatible topologies of a group. **81j:06008**

Erné, Marcel On the relativization of chain topologies. **81i:06011**

Lawson, Jimmie D. Algebraic conditions leading to continuous lattices. **81g:06002**

Lihová, Judita On topologies convexly compatible with the ordering. **81a:06009**

secondary classifications:

Člín, V. I. Uniformities and estimates on logics. (Russian) (81j:81005)

Erné, Marcel Separation axioms for interval topologies. (81d:54012)

Hofmann, Karl Heinrich A note on Baire spaces and continuous lattices. (81k:54049)

Lawson, Jimmie D. The duality of continuous posets. (81i:06003)

Lihová, Judita Some properties of an ordering relation on certain classes of functors. (81k:54055)

Luppi, Carla Topological Heyting algebras. (Italian. English summary) (81g:06007)

Lystad, Garr S. (with Stralka, Albert R.) Semilattices having bialgebraic congruence lattices. (81i:06004)

Reynolds, George Alexandroff algebras and complete regularity. (81d:54014)

Schmidt, Elégus Tamás Remark on generalized function lattices. (81f:06008)

Stralka, Albert R. See Lystad, Garr S., (81i:06004)

Thurny, Jerzy Continuity problems in the power-set algebra of infinite trees. (81c:68053)

06B99 None of the above, but in this section

- Chajda, Ivan (with Zelinka, Bohdan) Tolerances and convexity. (Russian summary) 81a:06010
- Dorninger, Dietmar (with Nöbauer, W.) Local polynomial functions on lattices and universal algebras. 81f:06012
- Harari, Alfons On G -lattices. (Russian summary) 81c:06010
- Kleitman, Daniel J. (with Winston, K. J.) The asymptotic number of lattices. 81m:06016
- Lee, Rebecca H. Covers and associated primes in Noetherian lattice modules. 81a:06011
- Nieminen, Juhani Betweenness and ternary operations on partial lattices. 81d:06008
- Nöbauer, W. See Dorninger, Dietmar, 81f:06012
- Rosolini, Giuseppe On lattice extensions. (Italian summary) 81h:06005
- Sabo, Michal Classification and extension by the transfinite induction. (Russian summary) 81h:06006
- Smoljaninova, Z. A. On the question of the stability of a correct algorithm. (Russian) 81k:06009
- Tomková, Mária Graph isomorphisms of modular multilattices. (Russian summary) 81c:06015
- Winston, K. J. See Kleitman, Daniel J., 81m:06016
- Zelinka, Bohdan See Chajda, Ivan, 81a:06010

secondary classifications:

- Acketa, Dragon M. On the essential flats of geometric lattices. (81h:05038)
- Bennett, Mary Katherine An embedding theorem for finite lattices. (81m:52018)
- Blyth, T. S. A coordinatisation of implicative (semi-)lattices by Baer semigroups. (81a:06003a)
- See also Johnson, C. S., Jr., (81a:06003b)
- Bredtina, D. A. RL -lattices of congruences of groups. (Russian) (81c:20026)
- Fried, E. Equational bases for some nonassociative generalizations of the class of distributive lattices. (81m:08012)
- Gibbins, Peter Material implication: a variant of the Dale defence. (81j:03020)
- Goncharov, S. S. The problem of the number of nonautoequivalent constructivizations. (Russian) (81i:03070)
- Hickman, John L. A -minimal lattices. (81j:03080)
- Johnson, C. S., Jr. A note on: "A coordinatisation of implicative (semi-)lattices by Baer semigroups". (81a:06003b)
- Lihová, JUDITA On the lattice of convexly compatible topologies on a partially ordered set. (81a:54051)
- Mamedov, O. M. Equational compactness in some classes of ordered algebras. (Russian. Azerbaijani and English summaries) (81h:08004)
- Narayana, T. V. (with Savage, I. Richard; Saxena, K. M. Lal) Young chains and rank orders. (French summary) (81i:62078)
- Orlik, Peter (with Solomon, Louis) Combinatorics and topology of complements of hyperplanes. (81e:32015)
- Perminov, E. A. See Vazenin, Ju. M., (81g:05061)
- Rival, Ivan Lattices and partially ordered sets. (French summary) (See 80c:05005)
- Savage, I. Richard See Narayana, T. V.; et al., (81i:62078)
- Saxena, K. M. Lal See Narayana, T. V.; et al., (81i:62078)
- Solomon, Louis See Orlik, Peter, (81e:32015)
- Strassner, Karl Kongruenzen und Erweiterungen von Semimoduln. (English and Russian summaries) (81f:06009)
- Szymańska-Bartman, M. Weak orthogonalities on a partially ordered set. (81a:06002)
- Vazenin, Ju. M. (with Perminov, E. A.) Rigid lattices and graphs. (Russian) (81g:05061)
- Yager, Ronald R. On the measure of fuzziness and negation. II. Lattices. (81e:03055)

06Cxx Modular lattices, complemented lattices

06C05 Modular lattices, Desarguesian lattices

- Blyth, T. S. Baer semigroup coordinatizations of modular lattices. 81a:06012
- Cornish, William H. (with Noor, A. S. A.) Bands and modular lattices. 81c:06011
- Dlab, Vlastimil Structure des treillis linéaires libres (d'après I. M. Gelfand et V. A. Ponomarev). 81m:06019
- Freese, Ralph The variety of modular lattices is not generated by its finite members. 81g:06003
- Free modular lattices. 81k:06010
- (Gelfand, I. M.) See Dlab, Vlastimil, 81m:06019
- Huhn, A. P. On n -distributive system of elements of a modular lattice. 81m:06017
- Lea, J. W. Continuous modular lattices of breadth two. 81d:06009
- Maeda, Shūichirō On finite-modular atomic lattices. (Japanese) 81h:06007
- Noor, A. S. A. See Cornish, William H., 81c:06011
- (Ponomarev, V. A.) See Dlab, Vlastimil, 81m:06019
- Richter, Gerd Einige Ergebnisse aus der Theorie der zyklisch erzeugten modularen Verbände. 81e:06016
- Schweigert, Dietmar Compatible relations of modular and orthomodular lattices. 81m:06018
- Valenzjak, A. Direct decompositions in Dedekind lattices. (Russian) 81j:06009

secondary classifications:

- Georgacarakos, G. N. Orthomodularity and relevance. (81c:03014)
- Harper, L. H. A Sperner theorem for the interval order of a projective geometry. (81a:05028)
- Morin-Strom, Karl A. Witt's theorem for modular lattices. (81d:10013)

06C10 Semimodular lattices, geometric lattices

- Björner, Anders (with Rival, Ivan) A note on fixed points in semimodular lattices. 81d:06010

Faigle, Ulrich Über Morphismen halbmodularer Verbände. (English summary) 81m:06020

- Freese, Ralph Projective geometries as projective modular lattices. 81j:06010
- Rival, Ivan See Björner, Anders, 81d:06010
- Schweigert, Dietmar Polarities of Pappian geometric lattices. 81j:06011
- Stern, Manfred On perspectivities in incidence geometries of grade n . 81j:06012
- Strietz, H. Über Erzeugendenmengen endlicher Partitionenverbände. 81k:06011

secondary classifications:

- Faigle, Ulrich Extensions and duality of finite geometric closure operators. (81f:5000)
- Salli, V. N. Some conditions for distributivity of a lattice with unique complements. (Russian) (81i:06012)

06C15 Complemented lattices, orthocomplemented lattices

- Gaudard, Marie Adèle Dispersion free weights, maximal refinement ideals, and atomicity in certain generalized sample spaces. 81d:06011
- Greechie, Richard J. Any complete atomic orthomodular lattice with countably many atoms is a sublattice of one generated by three elements. 81m:06021
- Salli, V. N. Some conditions for distributivity of a lattice with unique complements. (Russian) 81i:06012

secondary classifications:

- Pulmannová, Sylvia Superpositions of states and a representation theorem. (81k:8100)
- Rehder, Wulf When do projections commute? (81h:81013)
- Schweigert, Dietmar Compatible relations of modular and orthomodular lattices. (81m:06018)

06C20 Complemented modular lattices, continuous geometries

secondary classifications:

- Freese, Ralph The variety of modular lattices is not generated by its finite members. (81g:06003)
- Szász, G. Characterization of the projectivity of principal ideals by generalized complements. (81m:06023)

06C99 None of the above, but in this section

- Georgacarakos, G. N. Equationally definable implication algebras for orthomodular lattices. 81h:06008
- Konstantinidou-Serafimidou, Maria Modular hyperlattices. (Greek summary) 81j:06013
- Plá Carrera, José On negations in lattices. (Spanish) 81m:06022
- Stern, Manfred Standard ideals in matroid lattices. 81g:06004
- Szász, G. Characterization of the projectivity of principal ideals by generalized complements. 81m:06023

secondary classifications:

- Godowski, Radosław Disjunctivity and orthodisjunctivity in orthomodular posets. (81f:06003)
- Lee, Y. C. A Witt's theorem for unimodular lattices. (81a:10032)

06Dxx Distributive lattices

06D05 Structure and representation theory

- Adams, M. E. (with Babai, László; Sichler, J.) Automorphism groups of finite distributive lattices with a given sublattice of fixed points. 81m:06024
- Babai, László See Adams, M. E.; et al., 81m:06024
- Bulman-Fleming, Sydney (with McDowell, K.) Flat distributive lattices are trivial. 81c:06017
- Cornish, William H. An ordered sheaf representation of subresiduated lattices. 81m:06025
- Duffus, Dwight (with Rival, Ivan) A note on weak embeddings of distributive lattices. 81c:06012
- Jakubík, Ján (with Kolibiar, Milan) Lattices with a third distributive operation. (Russian summary) 81i:06013
- Koh, Khue Meng New generators of the Frattini sublattice of a finite distributive lattice. 81m:06026
- Kolibiar, Milan See Jakubík, Ján, 81i:06013
- Kornienko, V. S. Distributive lattices with irreducible projective polygons. (Russian. English summary) 81c:06018
- Manikymba, P. See Swamy, U. Maddana, 81a:06014 and Swamy, U. Maddana, 81h:06009
- McDowell, K. See Bulman-Fleming, Sydney, 81c:06017
- Nieminen, Juhani A note on relations in distributive lattices. (Slovak and Russian summaries) 81a:06013
- Radnev, P. Universal polygons over distributive lattices. (Russian) 81f:06013
- Rival, Ivan See Duffus, Dwight, 81c:06012
- Schmid, Jürg Tensor products of distributive lattices and their Priestley duals. 81m:06027
- On lattices of continuous order-preserving functions. 81m:06028
- Sichler, J. See Adams, M. E.; et al., 81m:06024
- Swamy, U. Maddana (with Manikymba, P.) Prime ideal characterization of Stone lattices. 81a:06014
- (with Manikymba, P.) Representation of certain classes of distributive lattices by sections of sheaves. 81i:06009
- Traczyk, Tadeusz On the variety of bounded commutative BCK-algebras. 81a:06015

secondary classifications:

- Banaschewski, Bernhard The duality of distributive continuous lattices. (81m:54072)
 Chajda, Ivan A characterization of distributive lattices by tolerance lattices. (81c:06014)
 Kim, Ki Hang (with Roush, F. W.) Regular rings and distributive lattices. (81g:16017)
 Markowsky, George The level polynomials of the free distributive lattices. (81c:05054)
 Mislove, Didier Sur le treillis distributif des V_1 -formules fermées de l'arithmétique de Peano. (English summary) (81m:03069)
 Roush, F. W. See Kim, Ki Hang, (81g:16017)
 Wilke, Gerhard Eine Kennzeichnung topologischer Räume durch Hüllenalgebren. (81k:54071)

06D10 Complete distributivity

- Dwinger, Ph. Classes of completely distributive complete lattices. 81m:06029

secondary classifications:

- Bandelt, Hans-J. Regularity and complete distributivity. (81d:20058)
 Herrmann, Christian On a condition sufficient for the distributivity of lattices of linear subspaces. (81c:06008)

06D15 Pseudocomplemented lattices

- Beazer, R. Subdirectly irreducibles for various pseudocomplemented algebras. 81g:06005
 Bordalo, Gabriela Le radical de Stone d'une p -algèbre. (English summary) 81d:06012
 Katriňák, Tibor Subdirectly irreducible distributive double p -algebras. 81g:06006
 Kowol, Gerhard Generalized relatively pseudocomplemented lattices. 81k:06012

secondary classifications:

- Jägermann, Michal Information storage and retrieval systems with incomplete information. II. (81a:68109)

06D20 Heyting algebras [See also 03Gxx.]

- Beazer, R. (with Macnab, D. S.) Modal extensions of Heyting algebras. 81d:06013
 Subdirectly irreducible double Heyting algebras. 81d:06015
 Köhler, Peter A subdirectly irreducible double Heyting algebra which is not simple. 81d:06014
 Luppi, Carla Topological Heyting algebras. (Italian. English summary) 81g:06007
 Macnab, D. S. See Beazer, R., 81d:06013

secondary classifications:

- Emilia, L. L. On the variety of Grzegorczyk algebras. (Russian) (81j:03097)
 Fleischer, Isidore Relatively pseudocomplemented semilattices amalgamate strongly. (81m:06008)
 Ituriz, Luisa Two typical representation theorems for symmetrical Heyting algebras of order n . (81f:03076)

06D25 Post algebras [See also 03G20.]

secondary classifications:

- Beazer, R. (with Macnab, D. S.) Modal extensions of Heyting algebras. (81d:06013)
 Macnab, D. S. See Beazer, R., (81d:06013)
 Manikyamba, P. See Swamy, U. Maddana, (81h:06009)
 Perrine, Serge A new aspect of some Post algebras. (81i:03100)
 Ribeyre, Serge Structures floues et algèbres de Post. (81k:03056)
 Swamy, U. Maddana (with Manikyamba, P.) Representation of certain classes of distributive lattices by sections of sheaves. (81h:06009)

06D30 DeMorgan algebras, Łukasiewicz algebras [See also 03G20.]

- Dorninger, Dietmar (with Schweigert, Dietmar) Zur Darstellung von Polynomen auf De Morgan Algebren. 81c:06019
 Filipou, Alexandru Representation of Łukasiewicz algebras by means of ordered Stone spaces. 81c:06013
 Ituriz, Luisa On complemented elements in Łukasiewicz algebras. 81k:06013
 Klau, Dieter Partielle Boolesche Algebren in der Intervallmathematik. 81f:06014
 Partielle Boolesche Algebren in der Intervallmathematik. II. 81f:06014b
 Schweigert, Dietmar See Dorninger, Dietmar, 81c:06019

secondary classifications:

- Cignoli, Roberto Coproducts in the categories of Kleene and three-valued Łukasiewicz algebras. (81d:08010)
 Kaufmann, Louis H. De Morgan algebras—completeness and recursion. (81d:03063)
 Traczyk, Tadeusz On the variety of bounded commutative BCK-algebras. (81a:06015)

06D99 None of the above, but in this section

- Anderson, D. D. (with Johnson, E. W.; Johnson, Johnny A.) Noether lattices representable as quotients of the lattice of monomially generated ideals of polynomial rings. 81c:06014
 Bandelt, Hans-J. The tensor product of continuous lattices. 81j:06014
 Barbut, M. Médiane, distributivité, éloignements. (English summary) 81k:06014
 Cornish, William H. 3-permutability and quasicommutative BCK-algebras. 81m:06030
 Rings and implicative BCK-algebras. 81m:06031
 A multiplier approach to implicative BCK-algebras. 81m:06032

- Deeba, Elias Y. A characterization of complete BCK-algebras. 81c:06020
 Finitely generated ideals of a BCK-algebra. 81c:06021

- Grzysiewicz, Andrzej On some problem on BCK-algebras. 81k:06015
 Iséki, Kiyoshi Some results on positive implicative BCK-algebras with condition (S). 81g:06008

- Remarks on contrapositionally complemented BCK-algebras (NB BCK-algebras). 81h:06010a

- On BCK-algebras with a unary operation. 81k:06010b
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- Johnson, E. W. See Anderson, D. D.; et al., 81c:06014

- Johnson, Johnny A. See Anderson, D. D.; et al., 81c:06014

- Komorniková, Magda Numerical entropy. (Slovak and Russian summaries) 81c:06015
 Monjardet, B. Théorie de la médiane dans les treillis distributifs finis et applications. (English summary) 81k:06020

- Niederle, Josef Tolerance extensions in distributive lattices. 81m:06033

- Palasiński, Marek (with Woźniakowska, Barbara) On congruence lattices of commutative BCK-algebras. 81g:06010

- Some remarks on BCK-algebras. 81j:06015

- Some remarks on BCK-algebras. 81h:06011

- Romanowska, Anna On some algebras connected with the theory of harmony. 81k:06021

- Wagner, D. Two notes on frames. 81d:06016

- Woźniakowska, Barbara On a problem on BCK-algebras. 81k:06022

- See also Palasiński, Marek, 81g:06010

- Yutani, Hiroshi An axiom system for a BCK-algebra with the condition (S). 81g:06011

secondary classifications:

- Chajda, Ivan (with Zelinka, Bohdan) Tolerance relations on direct products of monoids and distributive lattices. (Serbo-Croatian summary) (81f:06001)
 Chromik, Wiesława On some axiomatics of the product of the class of distributive lattices and the class of Boolean algebras. (81m:06011)
 Cornish, William H. Lattice-ordered groups and BCK-algebras. (81m:06040)
 Iséki, Kiyoshi On BCK-algebras with condition (S). (81c:03054)
 On some problems on BCK-algebras. (81d:03062)
 Ivan, Floarea Separators algebra. (81c:20005)
 Rao, N. Prabhakara Brouwerian semigroups. II. (81a:06020)
 Sallé, V. N. Some conditions for distributivity of a lattice with unique complements. (Russian) (81i:06012)
 Sokolnicki, Krzysztof Characterizations of certain algebraic theories. (Russian summary) (81c:18009)
 Swamy, U. Maddana Distributive semilattices. (81d:06005)
 Tomková, Mária Graph isomorphisms of modular multilattices. (Russian summary) (81c:06015)
 Zelinka, Bohdan See Chajda, Ivan, (81f:06001)

06Exx Boolean algebras [See also 03G05.]

06E05 Structure theory

- Abad, Manuel (with Monteiro, Luiz) Number of epimorphisms between finite symmetric Boolean algebras. 81c:06022
 Abian, Alexander k -inductive Boolean algebras and the existence of special ultrafilters. 81d:06017
 Chromik, Wiesława (with Halkowska, Katarzyna) On a certain countable and atomic Boolean algebra. (Polish. English summary) 81k:06023
 Esteva, F. A characterization of complete atomic Boolean algebra. 81c:06016
 Halkowska, Katarzyna See Chromik, Wiesława, 81k:06023
 Monteiro, Luiz See Abad, Manuel, 81c:06022
 Remmel, J. B. Complementation in the lattice of subalgebras of a Boolean algebra. 81c:06023
 Šedivá-Trnková, Věra Isomorphisms of sums of countable Boolean algebras. 81j:06016
 Todorčević, Stevo Rigid Boolean algebras. 81j:06017

secondary classifications:

- Baumgartner, James E. Chains and antichains in $\mathcal{P}(\omega)$. (81d:03054)
 van Douwen, Eric K. (with van Mill, Jan) Subspaces of basically disconnected spaces or quotients of countably complete Boolean algebras. (81b:54038)
 van Mill, Jan See van Douwen, Eric K., (81b:54038)
 Monk, J. Donald A very rigid Boolean algebra. (81h:03074)
 Rubin, Matatyahu On the automorphism groups of countable Boolean algebras. (81g:03039)
 (with Shelah, Saharon) On the elementary equivalence of automorphism groups of Boolean algebras; downward Skolem-Löwenheim theorems and compactness of related quantifiers. (81h:03078)
 Rudanu, Sergiu Fix points of lattice and Boolean transformation. (81i:06007)
 Shelah, Saharon See Rubin, Matatyahu, (81h:03078)

06E10 Chain conditions, complete algebras

- Argyros, S. A decomposition of complete Boolean algebras. **81m:06034**
 Natarajan, Ponnammal Complete endomorphisms of a Boolean algebra. **81m:06035**

06E15 Topological representation

- Batbedat, André Des dualités pour les préanneaux booléens. II. (Italian summary) **81h:06006**
 Lam, Kah Seng (with Lim, Chong Keang) Categorical equivalence of ideals and open sets. **81d:06018**
 Lim, Chong Keang See Lam, Kah Seng. **81d:06018**
 Miroli, Massimo Duality for Boolean operators. (Italian) **81f:06016**

secondary classifications:

- Maksimova, L. L. Interpolation theorems in modal logics and amalgamable varieties of topological Boolean algebras. (Russian) **(81j:03031)**

06E20 Boolean rings [See also 16A30, 16A32.]

- Abian, Alexander The prime ideals of the Boolean ring of intervals. **81a:06016**
 Flachmeyer, J. Underlying Boolean algebras of topological semifields. **81h:06012**
 Hanumanthachari, J. Some number-theoretic Boolean rings. **81k:06024**
 Ranga Rao, P. On the direct product of Boolean and lattice-ordered rings. **81j:06018**

secondary classifications:

- Beaz, Walter Über eine Funktionsgleichung von G. Aumann. **(81m:39013)**
 Putcha, Mohan S. (with Yaqub, Adil) Rings which are multiplicatively generated by idempotents. **(81g:16019)**
 Yaqub, Adil See Putcha, Mohan S., **(81g:16019)**

06E99 None of the above, but in this section

- Bulatović, Jelena On probability function on pseudo-Boolean algebra. **81h:06013**
 Coulon, Jean-Louis See Coulon, Josette, **(See 81m:03067)**
 Coulon, Josette (with Coulon, Jean-Louis) Fuzzy Boolean algebras. **(See 81m:03067)**
 Dobbertin, Hans Note on associative Newman algebras. **81b:06007**
 Gilezan, Koriolan A note on the monotonicity and regularity of generalized pseudo-Boolean functions. (Serbo-Croatian summary) **81c:06017**
 Melter, R. A. (with Rudeanu, Sergiu) Generalized inverses of Boolean functions. **81m:06036**
 Porokhin, A. G. On the question of the normability of Boolean algebras with a continuous outer measure. (Russian) **81j:06019**
 Rudeanu, Sergiu Injectivity domains of Boolean transformations. **81e:06024**
 See also Melter, R. A., **81m:06036**
 Sack, Ira Howard Prefilters over an arbitrary Boolean algebra. **81b:06008**
 Tolić, Ratko Some properties of monotone Boolean functions over finite Boolean algebras. (Serbo-Croatian. English summary) **81a:06017**
 Vila Mitija, A. g -valuations of distributive lattices. (Spanish) **81d:06019**
 Weese, Martin Mad families and its classification. **81d:06020**

secondary classifications:

- Banaschewski, Bernhard (with Nelson, Evelyn) Boolean powers as algebras of continuous functions. **(81i:03040)**
 Berman, Piotr Complexity of the theory of atomless Boolean algebras. **(81k:03033)**
 Cocan, Moise A method of classifying the states of a Markov chain. (Romanian. German summary) **(81m:60124)**
 Denev, Iordan D. (with Tončev, V. D.) On the number of equivalence classes of Boolean functions under a transformation group. **(81g:94058)**
 Herrmann, Robert A. Nonstandard implication algebras. **(81f:03074)**
 Horn, Alfred Free S5 algebras. **(81e:03061)**
 Kosen, Dexter Complexity of Boolean algebras. **(81b:03008)**
 Mamato, Ju. A. A method for the synthesis of planar disjunctive normal forms for logic functions. (Russian) **(81k:94053)**
 Mangani, Piero (with Marcja, Annalisa) Shelah rank for Boolean algebras and some application to elementary theories. I. **(81i:03044)**
 Marcja, Annalisa See Mangani, Piero, **(81i:03044)**
 Mead, J. (with Nelson, G. C.) Model companions and k -model completeness for the complete theories of Boolean algebras. **(81f:03047)**
 Mijajlović, Žarko Saturated Boolean algebras with ultrafilters. **(81i:03053)**
 Nelson, Evelyn See Banaschewski, Bernhard, **(81i:03040)**
 Nelson, G. C. See Mead, J., **(81f:03047)**
 Rosolini, Giuseppe On lattice extensions. (Italian summary) **(81h:06005)**
 Šipos, Ján Subalgebras and sublogics of α -logics. (Russian summary) **(81g:03080)**
 Tončev, V. D. See Denev, Iordan D., **(81g:94058)**

06Fxx Ordered structures [See also 22A26, 54F05.]

06F05 Ordered semigroups [See also 20Mxx.]

- Aljakin, V. A. Functions of a set with values in a partially ordered semigroup with a basis and subtraction. (Russian) **81m:06037**
 Bosbach, Bruno Archimedische Teilbarkeitshalbgruppen und Quaderalgebren. (English summary) **81m:06038**
 da Costa Reis, M. Raquel P. Partial residuals in groupoid lattices. I. **81e:06025**
 Góberstein, S. M. F -simple inverse semigroups. (Russian) **81a:06018**
 Fundamental order relations on completely 0-simple semigroups. (Russian) **81f:06017**

- Hartwig, Robert E. How to partially order regular elements. **81i:06014**
 Hoo, C. S. See Shum, K. P., **81f:06020**
 Isrolov, S. Finite approximability of ordered semigroups in relation to predicate (Russian) **81f:06018**
 Approximation of ordered semigroups by positive real functionals. (Russian. Tajiki summary) **81j:06020**
 Approximation of ordered semigroups. (Russian. Tajiki summary) **81d:06021**
 Kwan, S. Y. (with Shum, K. P.) Lattices of order ideals on ordered semigroups. **81c:06018**
 McFadden, R. Partially ordered semigroups as semigroups. **81k:06025**
 Murata, Kentaro A note on integrally closed orders in semigroups. **81f:06019**
 Pondělíček, R. The intersection graph of a simply ordered semigroup. **81a:06019**
 Rao, N. Prabhakara Brouwerian semigroups. II. **81a:06020**
 Saitō, Tōru Fundamentally linearly ordered semigroups. **81c:06019**
 The orderability of regular semigroups. **81b:06009**
 Archimedean classes in a nonnegatively ordered semigroup. **81e:06026**
 Nonnegatively ordered semigroups in the strict sense and problems of Satyanarayana. I. **81i:06015**
 Satyanarayana, M. Totally ordered Archimedean semigroups. **81b:06010**
 Shum, K. P. (with Hoo, C. S.) Prime radical theorem on ordered semigroups. **81f:06020**
 See also Kwan, S. Y., **81c:06018**

secondary classifications:

- Arsove, Maynard (with Leutwiler, Heinz) Algebraic potential theory. **(81f:31002)**
 Burkard, Rainer E. (with Zimmermann, Uwe) Weakly admissible transformations for solving algebraic assignment and transportation problems. **(81h:90093)**
 (Clifford, Alfred H.) See Proceedings: Conference on Semigroups in Honor of Alfred H. Clifford, **(81a:20004)**
 Domingo, Xavier On order and betweenness compatibility. **(81a:06001)**
 Jiménez Guerra, Pedro Sur l'extension des fonctions additives continues sur semigroupes topologiques préordonnés. **(81e:46005)**
 Leutwiler, Heinz See Arsove, Maynard, **(81f:31002)**
 Murata, Kentaro A note on arithmetics in semigroups. **(81i:20094)**
 (Nico, William R.) See Proceedings: Conference on Semigroups in Honor of Alfred H. Clifford, **(81a:20004)**
 Zimmermann, Uwe See Burkard, Rainer E., **(81h:90093)**
 Conference:
 Semigroups in Honor of Alfred H. Clifford ★Proceedings of the Conference on Semigroups in honor of Alfred H. Clifford. **(81a:20004)**
 New Orleans, La. ★Proceedings of the Conference on Semigroups in honor of Alfred H. Clifford. **(81a:20004)**
 Proceedings:
 Conference on Semigroups in Honor of Alfred H. Clifford ★Proceedings of the Conference on Semigroups in honor of Alfred H. Clifford. **(81a:20004)**
 Semigroups ★Proceedings of the Conference on Semigroups in honor of Alfred H. Clifford. **(81a:20004)**

06F10 Noether lattices

06F15 Ordered groups [See also 20F60.]

- Ball, Richard N. Convergence and Cauchy structures on lattice ordered groups. **81m:06039**
 Bardwell, Maureen A. The α -primitive components of a regular ordered permutation group. **81f:06021**
 Bludov, V. V. (with Kokorin, A. I.) T -like ordered groups. (Russian) **81i:06016**
 Černák, Štefan On the maximal Dedekind completion of a lattice-ordered group. (Russian summary) **81d:06022**
 Conrad, Paul Minimal prime subgroups of lattice-ordered groups. **81d:06023**
 Cornish, William H. Lattice-ordered groups and BCK-algebras. **81m:06040**
 Dimitrov, Z. I. See Todorinov, S. A., **81d:06029**
 Dreveňák, Ondřej Lexicographic α -product of lattice-ordered FQ -groups. (Russian) **81f:06022**
 Feil, Todd A comparison of Chehata's and Clifford's ordinally simple ordered groups. **81h:06014**
 Glass, A. M. W. (with Holland, W. Charles; McCleary, Stephen H.) The structure of l -group varieties. **81k:06026**
 Grané Manlleu, José On the surjectivity of the Ribenboim representation of a lattice-ordered group. **81j:06021**
 Holland, W. Charles See Glass, A. M. W.; et al., **81k:06026**
 Jakubík, Ján On algebraic operations of a lattice-ordered group. **81c:06020**
 Generalized lattice identities in lattice-ordered groups. **81d:06024**
 Isometries of lattice-ordered groups. **81d:06025**
 Jakubíková, Mária On complete lattice ordered groups with two generators. I. (Russian summary) **81e:06027a**
 On complete lattice ordered groups with two generators. II. (Russian summary) **81e:06027b**
 Karzel, Helmut Zyklisch geordnete Gruppen. **81i:06017**
 Kokorin, A. I. See Bludov, V. V., **81i:06016**
 Koldunov, A. V. Conditions for coincidence of the K -completion of an Archimedean l -group with its α -completion. (Russian) **81m:06041**
 Kopytov, V. M. Free lattice-ordered groups. (Russian) **81i:06018**
 Madell, Robert L. Complete distributivity and α -convergence. **81d:06026**
 Martínez, Jorge Nilpotent lattice-ordered groups. **81a:06021**
 The fundamental theorem on torsion classes of lattice-ordered groups. **81i:06019**
 McCleary, Stephen H. See Glass, A. M. W.; et al., **81k:06026**
 Mitsch, H. Rechtsteilweise geordnete Gruppen. **81i:06020**
 Močkoř, Jiří A note on approximation theorems. **81i:06021**
 Oltikar, B. C. Right cyclically ordered groups. **81e:06028**

Plesčikov, V. I. Finite dimensionality of locally bicomact lattice-ordered groups with a relatively closed n -continuous order. (Russian) **81d:06027**

The construction of certain lattice-ordered groups with a topology. (Russian) **81d:06028**

Rachůnek, Jiří Z -subgroups of ordered groups. (Russian summary) **81c:06021**

Semi-ordered groups. (Czech and Russian summaries) **81k:06027**

Smith, Jo E. The lattice of f -group varieties. **81k:06026b**

Todorinov, S. A. (with Dimitrov, Z. I.) Groups, directed in the extended sense. (Bulgarian. Russian and English summaries) **81d:06029**

secondary classifications:

Lacava, Francesco Some properties of L -algebras and existentially closed L -algebras. (Italian. English summary) **(81a:03062)**

Rachůnek, Jiří Quasi-orders of algebras. (Czech summary) **(81c:09008)**

Redfield, R. H. Nonsecular, locally compact TRL groups. **(81c:22009)**

06F20 Ordered abelian groups, ordered linear spaces [See also 46A40.]

Anderson, Marlow (with Kenny, G. Otis) The root system of primes of a Hahn group. **81b:06011**

Broowski, Bruno The completion of partially ordered vector spaces and Korovkin's theorem. **81d:06030**

Elliott, George A. On totally ordered groups, and K_p . **81g:06012**

Jakubík, Ján Maximal Dedekind completion of an abelian lattice-ordered group. **81j:06022**

Kenny, G. Otis See Anderson, Marlow, **81b:06011**

Koshi, Shozo Vector spaces with linear order. **81b:06012**

Mosznar, Zenon Décompositions invariantes du demi-groupe des éléments non-négatifs du groupe archimédien. **81g:06013**

Tamura, Takayuki Extensions of partially ordered abelian groups. **81i:06022**

Wilhelm, Marek Completeness of f -groups and of f -seminorms. **81i:06023**

secondary classifications:

Cohen, Michael A. (with Narens, Louis) Fundamental unit structures: a theory of ratio scalability. **(81g:92025)**

Dashiell, F. (with Hager, Anthony W.; Henriksen, M.) Order-Cauchy completions of rings and vector lattices of continuous functions. **(81k:46020)**

Effros, Edward G. (with Shen, Chao Liang) Approximately finite C^* -algebras and continued fractions. **(81g:46076)**

Flüsser, Hans-Otto Das Zentrum archimedischer Vektorverbände. **(81d:46012)**

Glass, A. M. W. (with Pierce, Keith R.) Existentially complete abelian lattice-ordered groups. **(81k:03032)**

Goodearl, K. R. (with Handelman, David; Lawrence, John W.) Affine representations of Grothendieck groups and applications to Rickart C^* -algebras and m_0 -continuous regular rings. **(81f:16040)**

Hager, Anthony W. See Dashiell, F.; et al., **(81k:46020)**

Handelman, David (with Higgs, Denis; Lawrence, John W.) Directed abelian groups, countably continuous rings, and Rickart C^* -algebras. **(81g:46100)**

See also Goodearl, K. R.; et al., **(81f:16040)**

Henriksen, M. See Dashiell, F.; et al., **(81k:46020)**

Higgs, Denis See Handelman, David; et al., **(81g:46100)**

Lawrence, John W. See Goodearl, K. R.; et al., **(81f:16040)** and Handelman, David; et al., **(81g:46100)**

Narens, Louis See Cohen, Michael A., **(81g:92025)**

Németh, A. B. Strictly positive linear functionals and Pareto subgradients of minimal range. **(81f:90082)**

Ng, Kung Fu An introduction to ordered spaces. **(81i:46008)**

Pierce, Keith R. See Glass, A. M. W., **(81k:03032)**

Shen, Chao Liang On the classification of the ordered groups associated with the approximately finite-dimensional C^* -algebras. **(81h:46076)**

See also Effros, Edward G., **(81g:46076)**

06F25 Ordered rings, algebras, modules [For ordered fields, see 10M15, 12J15; see also 13J25, 16A86.]

Abian, Alexander Conditionally complete and conditionally orthogonally complete rings. **81d:06031**

Chajda, Ivan The extension property of orderings. **81c:06022**

Dal, Taen Yu Elementary functional equations on partially ordered linear algebra. **81b:06013**

Genău, Mircea On lattice seminorms of some reticulated algebras. (Romanian. French summary) **81c:06023**

Grané Manlleu, José Similarities in f -rings. (Spanish) **81g:06014**

Hartwig, Robert E. Pseudolattice properties of the star-orthogonal partial ordering for star-regular rings. **81i:06024**

Pinquell, Yves Dual ordonné d'un module. **81b:06014**

Teneva, St. G. See Todorinov, S. A., **81d:06032**

Todorinov, S. A. (with Teneva, St. G.) Lattice-ordered rings. **81d:06032**

Trillas, Joan On p -distributivity in f -rings. (Spanish) **81j:06023**

A contribution to the study of ordered rings and f -rings. (Spanish. English summary) **81f:06023**

A note on the p -distributivity in non-Archimedean f -rings. **81m:06042**

secondary classifications:

Durbo, Gabriele An ordered local algebra that occurs in systems theory. (Italian) **(81j:93010)**

van den Dries, Lou A linearly ordered ring whose theory admits elimination of quantifiers is a real closed field. **(81c:03033)**

Muni, Giuseppe Riesz-Stone algebras and spaces. (Italian) **(81c:46006)**

Ranga Rao, P. On the direct product of Boolean and lattice-ordered rings. **(81j:06018)**

Zaharov, V. K. Functional representation of the orthocompletion and the divisible hull of torsion-free Utumi modules. (Russian) **(81f:13004)**

06F30 Topological lattices, order topologies [See also 06B30, 54F05, 54H12.]

secondary classifications:

Battle Nicolas, Nadal (with Grané Manlleu, José) The Redfield topology of the lattice-ordered group of regular measures on a locally compact σ -compact topological space. (Spanish) **(81i:22003)**

Čertanov, G. I. Trees and linearly ordered bicomacta. (Russian) **(81b:54040)**

Grané Manlleu, José See Battle Nicolas, Nadal, **(81i:22003)**

Hoffmann, Rudolf-Eberhard Sobrification of partially ordered sets. **(81c:54013)**

Hong, S. S. (with Nel, L. D.) Reflexive topological semilattices and duality. **(81c:18010)**

Kulpa, Władysław A factorization theorem for GO-spaces. **(81c:54028)**

Lihová, JUDITA On topologies convexly compatible with the ordering. **(81a:06009)**

Mamedov, O. M. Equational compactness in some classes of ordered algebras. (Russian. Azerbaijani and English summaries) **(81h:08004)**

Nel, L. D. See Hong, S. S., **(81c:18010)**

06F99 None of the above, but in this section

Selivanov, Ju. A. On compatibility of order with some algebras. **81j:06024**

secondary classifications:

Becker, Eberhard Partial orders on a field and valuation rings. **(81i:12025)**

Blot, W. J. On the degree of incompleteness of modal logics. **(81a:03017)**

Fujishige, Satoru Principal structures of submodular systems. **(81h:05048)**

Gurevich, Yuri Monadic theory of order and topology. II. **(81h:03049)**

Hall, Japheth, Jr. The independence of certain axioms of structures in sets. (See **81c:08004**)

Testov, V. A. Structurally ordered quasigroups with two nontrivial supports. (Russian) (See **81b:20004**)

08-XX GENERAL MATHEMATICAL SYSTEMS

08-01 Elementary exposition, textbooks

Calenka, M. M. The concept of a mathematical structure. (Russian) **81c:08001**

08-02 Advanced exposition (research surveys, monographs, etc.)

08-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Richards, Joan L. The art and the science of British algebra: a study in the perception of mathematical truth. (French and German summaries) **(81m:01839)**

08-04 Explicit machine computation and programs (not the theory of computation or programming)

08-06 Proceedings, conferences, etc.

Abstracts:

Seminar on Universal Algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] **81j:08001**

Baku ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] **81j:08001**

Seminar:

Universal Algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] **81j:08001**

Universal algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] **81j:08001**

secondary classifications:

(Andrunakievič, V. A.) See Algebraic structures, **(81c:08003)**

(Bairamov, R. A.) See Special questions of algebra and topology, **(81m:20005)**

(Mustafae, L. G.) See Special questions of algebra and topology, **(81m:20005)**

Algebra ★Специальные вопросы алгебры и топологии. (Russian) [Special questions of algebra and topology] **(81m:20005)**

Algebraic structures ★Алгебраические структуры. (Russian) [Algebraic structures] **(81c:08003)**

Special questions of algebra and topology ★Специальные вопросы алгебры и топологии. (Russian) [Special questions of algebra and topology] **(81m:20005)**

Topology ★Специальные вопросы алгебры и топологии. (Russian) [Special questions of algebra and topology] **(81m:20005)**

08Axx Universal algebra [See also 03C05.]

08A02 Relational systems, laws of composition

Abina, Claudi (with Trillas Ruiz, Enrique) On natural metrics. **81d:08001**

Product, convexification and completion of generalized and probabilistic metric

- spaces. (Spanish) **81j:08002**
 Guedenkov, L. N. The algebra of correlations and abstract systems. (Russian) **81c:08002**
 Hadžić, Olga A remark on non-Archimedean Menger spaces. (Serbo-Croatian summary) **81c:08003**
 Lešćinski, V. A. Compositions of dynamical systems. (Russian) **81i:08001**
 Marcinkiewicz, Helena (with Żurawska, Lucyna) Some remarks on Galois correspondence. **81m:08001**
 Pons, Montserrat On some topologies on a generalized metric space. **81c:08004**
 Pöschel, Reinhard On a conjecture of H. Werner. **81b:08001**
 Trillas Ruiz, Enrique See Alsina, Claudi, **81d:08001**
 (Werner, Heinrich) See Pöschel, Reinhard, **81b:08001**
 Żurawska, Lucyna See Marcinkiewicz, Helena, **81m:08001**

secondary classifications:

- Cerruti, Umberto *M*-relational spaces and fixed point theorems. (**81h:54007**)
 Fixed points in *M*-relational spaces. (**81h:54035**)
 Franke, Martin (with Szyal, Dominik) On a probabilistic generalization of Banach's fixed point theorem. (Polish and Russian summaries) (**81f:54029**)
 Hadžić, Olga Fixed point theorems in probabilistic metric and random normed spaces. (**81f:54030**)
 A fixed point theorem in Menger spaces. (**81j:54071**)
 Hölle, Ulrich Probabilistic uniformization of fuzzy topologies. (**81j:54011**)
 Kim, Ki Hang (with Roush, Fred W.) Quasivarieties of binary relations. (**81e:08012**)
 Łoś, Jerzy Characteristic sets of a system of equivalence relations. (**81h:04004**)
 Morrel, B. (with Nagata, Jun-iti) Statistical metric spaces as related to topological spaces. (**81g:54003**)
 Nagata, Jun-iti See Morrel, B., (**81g:54003**)
 Rachunek, Jiří Categories of systems of *X*-relations. (**81k:18003**)
 Roush, Fred W. See Kim, Ki Hang, (**81e:08012**)
 Szyal, Dominik See Franke, Martin, (**81f:54029**)

08A05 Structure theory

- Bandyopadhyay, S. P. (with Chandra, Subha) Valuations in universal algebras. **81d:08002**
 Both, Nicolae Crossed relations. **81a:08001**
 Celakoski, Naum On semigroup associates. (Macedonian summary) **81a:08002**
 Chajda, Ivan (with Zelinka, Bohdan) Tolerance relations on direct products of monoids and distributive lattices. (Serbo-Croatian summary) **81f:08001**
 Partitions, coverings and blocks of compatible relations. (Serbo-Croatian summary) **81f:08002**
 Chandra, Subha See Bandyopadhyay, S. P., **81d:08002**
 Dudek, J. On universal algebras having bases of different cardinalities. **81e:08001**
 Ehrenfeucht, Andrzej (with Fajtlowicz, Siemion; Mycielski, Jan) Homomorphisms of direct powers of algebras. **81b:08002**
 Fajtlowicz, Siemion See Ehrenfeucht, Andrzej; et al., **81b:08002**
 Furtado-Coelho, João Functors associated with varieties of universal algebras. (Portuguese) **81m:08002**
 Hall, Japheth, Jr. The independence of certain axioms of structures in sets. (See **81e:08004**)
 Inffe, A. G. Some properties of the approximation models of algebraic systems. (Russian) **81h:08001**
 Krüger, Heiner Assoziativ-ähnliche Gesetze. **81g:08001**
 Länger, Helmut Diagonal-commutative quasitrivial superassociative systems. **81a:08003**
 Mycielski, Jan See Ehrenfeucht, Andrzej; et al., **81b:08002**
 Pasini, Antonio On transitive incidence algebras. (Italian. English summary) **81m:08003**
 Profera, Luigi Simple Artinian Hestenes ternary rings. (Italian. English summary) **81h:08002**
 Protasov, I. V. On the theory of topological algebraic systems. (Russian. English summary) **81e:08002**
 Shafaat, Ahmad Homomorphisms, homomorphic relations and power algebras. **81i:08002**
 Šik, František Schreier-Zassenhaus theorem for algebras. I. **81e:08003**
 Strecker, Reinhard *M*-Radikale von universellen Algebren. **81j:08003**
 Zamceruddin, Qazi On the existence of some binary systems. **81a:08004**
 Zelinka, Bohdan See Chajda, Ivan, **81f:08001**
 Zlot, Pavel A characterization of some Boolean powers. **81m:08004**

secondary classifications:

- Ranga Rao, P. On the direct product of Boolean and lattice-ordered rings. (**81j:06018**)
 de Resmaldi, Maria Luisa J. On congruences on Steiner ternary algebras. A class of resolvable SQSs. (Italian summary) (**81h:51004**)

08A30 Subalgebras, congruence relations

- Chajda, Ivan Decompositions of homomorphisms. (Russian summary) **81c:08005**
 Characterizations of relational blocks. **81b:08003**
 Regularity and permutability of congruences. **81k:08004**
 Relational classes and their characterizations. **81m:08005**
 Tolerances and the Chinese remainder theorem. (Russian summary) **81m:08006**
 Delanghe, Richard See Govaerts, W.; et al., **81b:08004**
 Fleischer, Isidore Extending a partial equivalence to a congruence and relative embeddings in universal algebras. **81m:08007**
 Fountain, J. B. (with Lockley, P.) Bands with distributive congruence lattice. **81g:08002**
 Franci, Raffaella Algebras with *m*-ideal congruences (*m*-ideal congruences. I). (Italian. English summary) **81d:08003**
 Freese, Ralph (with Lampe, William A.; Taylor, Walter) Congruence lattices of algebras of fixed similarity type. I. **81d:08004**
 Guad, Giuliana Semisimple algebras and filtral algebras. (Italian. English summary) **81a:08005**

- Govaerts, W. (with Delanghe, Richard; Impens, C.) Representation of ring morphisms on product rings. **81b:08004**
 Impens, C. See Govaerts, W.; et al., **81b:08004**
 Jónsson, Bjarni Congruence varieties. **81e:08004**
 Korec, Ivan On systems of isomorphic copies of an algebra in another algebra. (Slovak and Russian summaries) **81e:08025**
 Kurinni, G. Ć Arithmetic algebras with a Stone lattice of congruences. (Russian) **81j:08004**
 Lampe, William A. See Freese, Ralph; et al., **81d:08004**
 Lockley, P. See Fountain, J. B., **81g:08002**
 Nelson, Evelyn The independence of the subalgebra lattice, congruence lattice and automorphism group of an infinitary algebra. **81g:08003**
 Pöschel, Reinhard ★A general Galois theory for operations and relations and concrete characterization of related algebraic structures. **81h:08003**
 Rendl, B. On the lattice structure of universal algebras with an infinitary operation. (Romanian. French summary) **81i:08003**
 Šulka, Robert Remark on partially ordered sets, universal algebras and semigroups. (Russian summary) **81g:08004**
 Taylor, Walter See Freese, Ralph; et al., **81d:08004**
 Varlet, J. C. A strengthening of the notion of essential extension. (French summary) **81g:08005**

secondary classifications:

- Gein, A. G. Dualisms of Lie algebras. (Russian) (**81j:17015**)
 Hüringer, Thomas Projektive Erweiterung von Äquivalenzklassengeometrien. (**81m:51014**)

08A35 Automorphisms, endomorphisms

- Denecke, Klaus Schwache Automorphismen präprimärer Algebren, die arithmetische Varietäten erzeugen. **81f:08003**
 Glazek, Kazimierz Weak homomorphisms of general algebras and related topics. **81j:08005**
 Golubov, E. A. (with Sapir, M. V.) Residual finiteness of some constructions of universal algebras. (Russian) **81f:08004**
 Jagžev, A. V. Endomorphisms of free algebras. (Russian) **81d:08005**
 On the algorithmic problem of recognizing automorphisms among endomorphisms of free associative algebras of finite rank. (Russian) **81d:08006**
 Kaiser, H. K. (with Márki, L.) Remarks on a paper of L. Szabó and Á. Szendrei: "Almost all algebras with triply transitive automorphism groups are functionally complete" [Acta Sci. Math. (Szeged) **41** (1979), no. 3-4, 391-402; MR **81g:08006**]. **81g:08006**
 Lau, Dietlind Automorphismen auf den maximalen Klassen der *k*-wertigen Logik. **81g:08006**
 Márki, L. See Kaiser, H. K., **81g:08006**
 Sapir, M. V. See Golubov, E. A., **81f:08004**
 Szabó, László (with Szendrei, Ágnes) Almost all algebras with triply transitive automorphism groups are functionally complete. **81g:08006**
 See also Kaiser, H. K.; et al., **81g:08006**
 Szendrei, Ágnes See Szabó, László, **81g:08006** and Kaiser, H. K.; et al., **81g:08006**
 Wnuk, Barbara On symmetry groups of algebraic operations. (Polish. English summary) **81m:08008**

secondary classifications:

- Bredihin, D. A. Inverse semigroups of local automorphisms. (Russian) (**81d:20059**)
 Michler, Lothar (with Schreckenberger, Jürgen) Über die Vollständigkeit algebraischer induktiver Gruppoide. (**81i:20073**)
 Nelson, Evelyn The independence of the subalgebra lattice, congruence lattice and automorphism group of an infinitary algebra. (**81g:08003**)
 Plonka, J. On automorphism groups of relational systems and universal algebras. (**81e:04003**)
 Pöschel, Reinhard ★A general Galois theory for operations and relations and concrete characterization of related algebraic structures. (**81h:08003**)
 Schreckenberger, Jürgen See Michler, Lothar, (**81i:20073**)

08A40 Operations, polynomials, primal algebras

- Csikány, Béla (with Gavalcová, Tat'jana) Finite homogeneous algebras. I. **81f:08005**
 Gavalcová, Tat'jana See Csikány, Béla, **81f:08005**
 Golubov, Ju. V. The completeness of operations in systems of algorithmic algebras. (Russian) **81k:08001**
 Istinger, M. (with Kaiser, H. K.; Pixley, Alden F.) Interpolation in congruence permutable algebras. **81g:08007**
 Kaiser, H. K. See Istinger, M.; et al., **81g:08007**
 Koh, Khee Meng Idempotent algebras with three essentially binary polynomials. **81c:08006**
 Länger, Helmut A characterization of algebras of polynomial functions. **81j:08007**
 Morini, Carlo *n*-coverings in universal algebra. (Italian. English summary) **81f:08006**
 Pixley, Alden F. See Istinger, M.; et al., **81g:08007**
 Quackenbush, Robert W. Algebras with minimal spectrum. **81c:08007**
 Schweigert, Dietmar On prepolynomially complete algebras. **81a:08006**
 Shafaat, Ahmad Unique factorization and Fermat's last property in groupoidal domains. **81f:08008**
 Silberger, D. M. When is a term point universal? **81d:08007**
 Szendrei, Ágnes On closed sets of linear operations over a finite set of squarefree cardinality. (German and Russian summaries) **81e:08006**
 Thurny, Jerzy Fixed points and algebras with infinitely long expressions. II. μ -clones of regular algebras. **81e:08007**

secondary classifications:

- Chajda, Ivan The extension property of orderings. (81c:06022)
 Davies, Roy O. On n -valued Sheffer functions. (81a:03021)
 Dorninger, Dietmar (with Nöbauer, W.) Local polynomial functions on lattices and universal algebras. (81f:06012)
 (with Eigenthaler, G.) Über den kanonischen Homomorphismus von Polynomverbänden. (81f:06009)
 (with Schweigert, Dietmar) Zur Darstellung von Polynomen auf De Morgan Algebren. (81c:06019)
 Eigenthaler, G. See Dorninger, Dietmar. (81f:06009)
 Nöbauer, W. See Dorninger, Dietmar. (81f:06012)
 Schweigert, Dietmar See Dorninger, Dietmar. (81c:06019)

08A45 Equational compactness

- Mamedov, O. M. Equational compactness in some classes of ordered algebras. (Russian. Azerbaijani and English summaries) 81h:08004

secondary classifications:

- Bulman-Fleming, Sydney (with Fleischer, Isidore) One-variable equational compactness in partially distributive semilattices with pseudocomplementation. (81f:06007)
 Fleischer, Isidore See Bulman-Fleming, Sydney. (81f:06007)
 Haley, David K. ★ Equational compactness in rings. (81e:16036)

08A50 Word problems [See also 03D40, 20F10.]

- Demel, Jiří See Münzová-Demlová, Marie; et al. 81g:08009
 Evans, Trevor Some solvable word problems. 81k:08002
 Ježek, Jaroslav Terms and semiterms. 81e:08008
 Koubek, Václav See Münzová-Demlová, Marie; et al. 81g:08009
 Münzová-Demlová, Marie (with Demel, Jiří; Koubek, Václav) Several algorithms for finite algebras. 81g:08009
 Prešić, Slavica B. On quasi-algebras and the word problem. 81g:08010

08A55 Partial algebras

- Ljupin, E. S. Weak associativity of partial operations. (Russian) 81e:08009
 Mikenberg, Irene A closure for partial algebras. 81g:08011
 Pastor, Ana A category-theoretical characterization of surjective homomorphisms of partial algebras. 81m:08009
 Rachůnek, Jiří Quasi-orders of algebras. (Czech summary) 81e:08008
 Vagner, V. V. On the theory of generalized rings, modules and linear algebras. (Russian) 81j:08008
 Žembery, Ivan A note on categories of partial algebras. (Russian summary) 81d:08008

08A60 Unary algebras

- Skornjakov, L. A. Group unars. (Russian. English summary) 81h:08005

secondary classifications:

- Deuber, Walter Partition theorems for unary algebras. (81i:05017)
 Michalski, Jacek On some functors from the category of n -groups. (Russian summary) (81i:20108)
 Inductive and projective limits of n -groups. (Russian summary) (81i:20109)

08A65 Infinitary algebras

08A99 None of the above, but in this section

- Bonnin, André Distributivité. 81i:08004
 Hannik, L. Linearly compact algebras. 81i:08005
 Mittas, Jean Hypergroupes fortement canoniques et supérieurement canoniques. 81m:08010
 Safonova, M. A. Classes and bases of quasiequivalence relatives. (Russian) 81c:08009
 Schein, Boris M. See Trohimenko, V. S., 81k:08003
 Tabor, József On commutative algebraic objects over the group $GL(n, R)$. 81i:08006
 Trohimenko, V. S. (with Schein, Boris M.) Compatible algebras of multplace functions. (Russian) 81k:08003

secondary classifications:

- Arnold, André (with Dauchet, M.) Théorie des magmoïdes. I. (English summary) (81d:68019a)
 Berman, Joel A proof of Lyndon's finite basis theorem. (81g:03033)
 Borceux, Francis (with Day, Brian J.) Universal algebra in a closed category. (81f:18023)
 Carlson, Renate n -ary algebras. (81j:16031)
 Dauchet, M. See Arnold, André. (81d:68019a)
 Day, Brian J. See Borceux, Francis. (81f:18023)
 Dohbertin, Hans Note on associative Newman algebras. (81h:06007)
 Gnedenkova, L. N. A method of decomposition of systems of constraints. (Russian) (81c:93007)
 Griesel, Heinz Vektorsysteme über einem Größensystem. (81a:60021)
 Ieki, Kiyoshi Some results on positive implicative BCK-algebras with condition (S). (81c:06008)
 Prodromov, Ivan Proximity algebras and their compact representations. (Bulgarian summary) (81d:54020)
 Žarek-Elgams, Maria Sur une définition de remplissage de l'équation de translation. (81d:39006)

08Bxx Varieties

08B05 Equational logic, Mal'cev conditions

- Chromik, Wiesława On some axiomatics of the product of the class of distributive lattices and the class of Boolean algebras. 81m:08011
 Fried, E. Equational bases for some nonassociative generalizations of the class of distributive lattices. 81m:08012
 (with Grätzer, George; Quackenbush, Robert W.) Uniform congruence schemes. 81m:08013
 Grätzer, George See Fried, E.; et al. 81m:08013
 Hule, Harald Solutionally complete varieties. 81i:08007
 Nefae, A. A. A basis of generalized identities of a finite commutative local principal ideal ring. (Russian) 81i:08006
 Neumann, Walter D. Errata: "Mal'cev conditions, spectra and Kronecker product" [J. Austral. Math. Soc. Ser. A 25 (1978), no. 1, 103-117; MR 58 #449]. 81b:08005
 Park, Robert E. A four-element algebra whose identities are not finitely based. 81k:08005
 Pigozzi, Don Minimal, locally-finite varieties that are not finitely axiomatizable. 81a:08007
 Porębska, Małgorzata On implivalential algebras. 81m:08014
 Quackenbush, Robert W. See Fried, E.; et al. 81m:08013
 Reiterman, Jan Structure-semantics relation for nonvariety equational theories. 81c:08010
 Taylor, Walter Mal'tsev conditions and spectra. 81h:08006
 Uroş, Carmencita On the independences of equational classes of universal algebras. (Romanian. German summary) 81g:08013

secondary classifications:

- Chajda, Ivan Regularity and permutability of congruences. (81k:08004)
 Gries, David Educating the programmer: notation, proofs and the development of programs. (See 81i:68009)
 Kennison, John F. Triples and compact sheaf representation. (81m:18005)
 Pigozzi, Don Universal equational theories and varieties of algebras. (81h:03034)
 Schwartz, Dietrich Algebra der partiellen Mengen. (81i:03101)
 Šestakov, I. P. A problem of Širšov. (Russian) (81e:17023)

08B10 Congruence modularity, congruence distributivity

- Gumm, H. Peter An easy way to the commutator in modular varieties. 81m:08015
 The little Desarguesian theorem for algebras in modular varieties. 81i:08009
 Köhler, Peter (with Pigozzi, Don) Varieties with equationally definable principal congruences. 81k:08006
 Pigozzi, Don See Köhler, Peter. 81k:08006

secondary classifications:

- Gardner, B. J. The lower radical construction for nonassociative rings: examples and counterexamples. (81c:17008)
 Gumm, H. Peter (with Herrmann, Christian) Algebras in modular varieties: Baer refinements, cancellation and isotopy. (81h:08008)
 Herrmann, Christian See Gumm, H. Peter. (81h:08008)
 Kollár, János Injectivity and congruence extension property in congruence distributive equational classes. (81c:08014)

08B15 Lattices of varieties

- Artamonov, V. A. Lattices of varieties of linear algebras. (Russian) 81g:08012a
 Letter to the editors: "Lattices of varieties of linear algebras". (Russian) 81g:08012b
 Crédit, G. On the lattice of congruence varieties of locally equational classes. 81i:08010
 Dziobiak, Wiesław A variety generated by a finite algebra with 2^n subvarieties. 81c:08011
 Malyshev, S. A. Finite lattices of certain permutational varieties. (Russian) 81i:08007
 The lattice of subvarieties of the variety $\Pi(x_1 \cdots x_n = x_1 \cdots x_n^{n+1}, xy = yx)$. (Russian) 81i:08011

secondary classifications:

- Gonçigoi, R. Varieties of associative algebras with \cup -distributive product of subvarieties. (Russian) (81c:08013)
 Kleiman, E. I. A note on: "Some properties of the lattice of varieties of inverse semigroups" [Ural. Gos. Univ. Mat. Zap. 10 (1977), no. 3 Issled. po Sovremenn. Algebre, 56-72; MR 58 #936]. (Russian) (81f:20073)
 Volkov, M. V. Periodic varieties of associative rings. (Russian) (81f:16027)

08B20 Free algebras

- Artamonov, V. A. Schreier varieties of n -groups and n -semigroups. (Russian) 81d:08009
 Ehrenfeucht, Andrzej (with Silberger, D. M.) Universal terms of the form B^*A^m . 81c:08012
 Silberger, D. M. See Ehrenfeucht, Andrzej. 81c:08012

secondary classifications:

- Bahturin, Ju. A. Identities of two variables in Lie algebra $s(2, k)$. (Russian) (81d:17013)
 Burgin, M. S. Free algebras with continuous systems of operations. (Russian) (81h:54049)
 Hurley, Bernard M. A note on the word problem for groups. (81m:20052)
 Jagiev, A. V. On the algorithmic problem of recognizing automorphisms among endomorphisms of free associative algebras of finite rank. (Russian) (81d:08006)

08B25 Products, amalgamated products

Aragane, Kenichi *See* Fujiwara, Tsuyoshi, 81h:08007

Fujiwara, Tsuyoshi (with Aragane, Kenichi) Free product decompositions in a regular class. 81h:08007

Gondziarz, R. Varieties of associative algebras with \cup -distributive product of subvarieties. (Russian) 81c:08013

Gunn, H. Peter (with Hermann, Christian) Algebras in modular varieties: Baer refinements, cancellation and isotopy. 81h:08008

Herrmann, Christian *See* Gunn, H. Peter, 81h:08008

08B30 Injectives, projectives

Fleischer, V. Normal varieties of algebras. (Russian. English and Estonian summaries) 81f:08008

Kollár, János Injectivity and congruence extension property in congruence distributive equational classes. 81c:08014

Nordahl, T. E. (with Scheiblich, H. E.) Projective bands. 81k:08007

Scheiblich, H. E. *See* Nordahl, T. E., 81k:08007

08B99 None of the above, but in this section

Steinby, Magnus Syntactic algebras and varieties of recognizable sets. 81h:08009

Vaughan-Lee, M. R. Laws in finite algebras. 81g:08014

Volkov, M. V. On the existence of finite bases for varieties of rings with finite index. II. (Russian) 81k:08008

secondary classifications:

Csikány, Béla (with Megyesi, L.) Varieties of idempotent medial n -quasigroups. (81i:20106)

Gardner, B. J. Extension-closure and attainability for varieties of algebras with involution. (81i:16012)

Kahn, Jeff (with Kung, Joseph P. S.) Varieties and universal models in the theory of combinatorial geometries. (81i:05051)

Kung, Joseph P. S. *See* Kahn, Jeff, (81i:05051)

Lender, V. B. On \mathcal{A} -solvable lattices. (Russian) (81k:06008)

Megyesi, L. *See* Csikány, Béla, (81i:20106)

Nikitin, A. A. Heredity of radicals of rings. (Russian) (81e:17001)

Polin, S. V. Minimal varieties of semirings. (Russian) (81i:16050)

Tišenko, A. V. The finiteness of a base of identities for five-element monoids. (81f:20075)

08Cxx Classes of algebras

08C05 Categories of algebras [See also 18C05.]

Cignoli, Roberto Coproducts in the categories of Kleene and three-valued Łukasiewicz algebras. 81d:08010

Marchand, Pierre Construction des algèbres minimales des sous-ensembles des algèbres libres. 81c:08015

Vasilache, Sergiu Projective limits in the categories of heterogeneous algebras and abstract automata. 81e:08010

secondary classifications:

Adámek, Jiří (with Koubek, Václav) Are colimits of algebras simple to construct? (81k:18004)

Davey, Brian A. Topological duality for prevarieties of universal algebras. (81b:54010)

Kopeček, Oldřich The categories of connected partial and complete unary algebras. (Russian summary) (81b:18002)

Koubek, Václav *See* Adámek, Jiří, (81k:18004)

Roebrugh, Robert D. On algebras defined by operations and equations in a topos. (81d:18011)

Žembery, Ivan A note on categories of partial algebras. (Russian summary) (81d:08008)

08C10 Axiomatic model classes [See also 03Cxx, in particular 03C60.]

Burris, Stanley (with Werner, Heinrich) Remarks on Boolean products. 81f:08009

Jónsson, Bjarni On finitely based varieties of algebras. 81g:08015

Tumanov, A. D. Topologizability of countable algebras. (Russian) 81c:08016

Werner, Heinrich *See* Burris, Stanley, 81f:08009

secondary classifications:

Aragane, Kenichi *See* Fujiwara, Tsuyoshi, (81h:08007)

Cohn, P. M. On semir constructions. (81m:16009)

Fujiwara, Tsuyoshi Algebraically closed algebraic extensions in universal classes. (81g:03037)

(with Aragane, Kenichi) Free product decompositions in a regular class. (81h:08007)

Grant, Steven A representation theorem for universal Horn classes categorical in power. (81b:03038)

Lacava, Francesco Some properties of L -algebras and existentially closed L -algebras. (Italian. English summary) (81a:03062)

Vagner, V. V. On the theory of generalized rings, modules and linear algebras. (Russian) (81j:08008)

08C15 Quasivarieties

Benenson, I. E. The structure of quasivarieties of models. (Russian) 81e:08011

Gorbunov, V. A. (with Tumanov, V. I.) On the structure of lattices of quasivarieties. (Russian) 81m:08016

Igolin, V. I. Lattices of quasivarieties. (Russian) 81c:08017

Kartašov, V. K. Quasivarieties of unars. (Russian) 81d:08011

Kim, Ki Hang (with Roush, Fred W.) Quasivarieties of binary relations. 81e:08012

Roush, Fred W. *See* Kim, Ki Hang, 81e:08012

Sapir, M. V. On the lattice of quasivarieties of idempotent semigroups. (Russian) 81h:08010

On the quasivarieties generated by finite semigroups. 81g:08016

Tumanov, V. I. *See* Gorbunov, V. A., 81m:08016

secondary classifications:

Lender, V. B. Replica trees on lattices. (Russian) (81e:06012)

Sapir, M. V. Finite and independent axiomatizability of some quasivarieties of semigroups. (Russian) (81h:20076)

Štírněv, J. E. Categorical quasivarieties of quasigroups. (Russian) (81i:20104)

08C99 None of the above, but in this section

Čupona, Ćorgi On a representation of algebras in semigroups. (Macedonian summary) 81i:08012

Ėmin, G. G. Prevarieties, groupoid of varieties, and strict radicals in the category of modules over all rings. (Russian. Armenian and English summaries) 81h:08011

10-XX NUMBER THEORY (Excluding 10Axx and 10Mxx, this classification does not distinguish work in the rational number fields from that in other algebraic number fields.)

Erdős, Paul A survey of problems in combinatorial number theory. 81m:10001

10-01 Elementary exposition, textbooks

Armendariz, Efraim P. (with McAdam, Stephen) ★Elementary number theory. 81a:10001

Burton, David M. ★Elementary number theory. 81c:10001a

★Elementary number theory. 81c:10001b

Freund, H. ★Elemente der Zahlentheorie. (German) [Elements of number theory] 81d:10001

Hamernik, Wolfgang Eine Operatorenmethode zur Einführung der reellen Zahlen. 81i:10001

Hardy, Godfrey Harold (with Wright, E. M.) ★An introduction to the theory of numbers. 81i:10002

Kalužnin, L. A. ★The fundamental theorem of arithmetic. 81e:10001

Koblitz, Neal The p -adic approach to solutions of equations over finite fields. 81d:10002

(Levine, Daniel A.) *See* Vorobiov, M. M., 81f:10001

McAdam, Stephen *See* Armendariz, Efraim P., 81a:10001

(McLarnan, Timothy) *See* Vorobiov, M. M., 81f:10001

Niven, Ivan (with Zuckerman, Herbert S.) ★An introduction to the theory of numbers. 81g:10001

Pieper, Herbert ★Variationen über ein zahlentheoretisches Thema von Carl Friedrich Gauß. (German) [Variations on a number-theoretic theme of Carl Friedrich Gauß] 81b:10001

(Reichardt, Hans) *See* Pieper, Herbert, 81b:10001

Silvester, John R. A matrix method for solving linear congruences. 81i:10003

Vorobiov, M. M. ★Criteria for divisibility. 81f:10001

(Wadwa, Ram S.) *See* Kalužnin, L. A., 81e:10001

Wright, E. M. *See* Hardy, Godfrey Harold, 81i:10002

Zuckerman, Herbert S. *See* Niven, Ivan, 81g:10001

secondary classifications:

Beskin, N. M. ★Замечательные дроби. (Russian) [Remarkable fractions] (81k:10014)

Dynkin, E. B. (with Uspenskii, V. A.) ★Mathematische Unterhaltungen. (German)

[Mathematical conversations] (81f:00001)

(Friedel, Peter) *See* Dynkin, E. B.; et al., (81f:00001)

Hasse, Helmut ★Number theory. (81c:12001a)

★Number theory. (81c:12001b)

Ruzsa, Imre Z. Arithmetical functions. I. (Hungarian. English summary) (81k:10074a)

(Savel'ev, L. Ja.) *See* Olympiads. Algebra. Combinatorial analysis, (81j:00004)

Uspenskii, V. A. *See* Dynkin, E. B., (81f:00001)

(Zimmer, Horst Günter) *See* Hasse, Helmut, (81c:12001a) and Hasse, Helmut,

(81c:12001b)

Algebra ★Олимпиады. Алгебра. Комбинаторика. (Russian) [Olympiads. Algebra.

Combinatorial analysis] (81j:00004)

Combinatorial analysis ★Олимпиады. Алгебра. Комбинаторика. (Russian)

[Olympiads. Algebra. Combinatorial analysis] (81j:00004)

Olympiads. Algebra. Combinatorial analysis ★Олимпиады. Алгебра. Комбинаторика.

(Russian) [Olympiads. Algebra. Combinatorial analysis] (81j:00004)

10-02 Advanced exposition (research surveys, monographs, etc.)

Erdős, Paul Some unconventional problems in number theory. 81h:10001

Gupta, Hansraj ★Selected topics in number theory. 81e:10002

Richards, Ian Number theory. (See 80b:00007)

secondary classifications:

Gross, Herbert ★Quadratic forms in infinite-dimensional vector spaces. (81f:10027)

Gruber, Peter M. Geometry of numbers. (81h:10044)

Harris, S. J. Number theoretical developments arising from the Siegel formula. (81a:12015)

- Masser, David W. Some recent results in transcendence theory. (81b:10051)
 Prachar, Karl ★ Primzahlverteilung. (German) [The distribution of primes] (81k:10060)
 Schmidt, Wolfgang M. ★ Diophantine approximation. (81j:10038)

10-03 Historical (must also be assigned at least one classification number from Section 01)

- Radjević, Predrag Fermat's great theorem. (Serbo-Croatian) 81m:10002

secondary classifications:

- Andrews, George E. ★ Partitions: yesterday and today. (81b:01015)
 An incredible formula of Ramanujan. (81d:10009)
 (Aryabhata I) See Behari, Ram, (81d:01004)
 Behari, Ram Aryabhata as a mathematician. (81d:01004)
 Berndt, Bruce C. Chapter 14 of Ramanujan's second notebook. (81k:10037)
 Beskin, N. M. ★ Замечательные дроби. (Russian) [Remarkable fractions] (81k:10014)
 Brauer, Richard ★ Collected papers. Vol. III. (81i:01017c)
 (Fong, Paul) See Brauer, Richard, (81i:01017c)
 (Gerardi, Paolo) See Van Egmond, Warren, (81i:01007)
 Loxton, John H. (with Sanders, J. W.) On an inversion theorem of Möbius. (81k:10006)
 Makys, M. Metric and analytic number theory at Vilnius University. (Russian).
 Lithuanian and English summaries (81k:10063)
 Mastavicius, E. Probabilistic number theory. (Russian. Lithuanian and English summaries) (81k:10080)
 Sanders, J. W. See Loxton, John H., (81k:10006)
 Springer, T. A. The theory of quadratic forms in the *Disquisitiones arithmeticae*. (See 80g:01034)
 Surányi, János Some proofs about the uniqueness of the prime number factorization of the integers. (Hungarian) (81d:10003)
 (Turner, J. C.) See Andrews, George E., (81b:01015)
 Van Egmond, Warren The earliest vernacular treatment of algebra: the "Libro di ragioni" of Paolo Gerardi (1328). (Italian summary) (81i:01007)
 (Wong, Warren J.) See Brauer, Richard, (81i:01017c)

10-04 Explicit machine computation and programs (not the theory of computation or programming)

- Brent, Richard P. The first occurrence of certain large prime gaps. 81g:10002
 MacLean, D. W. Residue classes of the partition function. 81a:10002
 Maher, David P. Existence theorems for transforms over finite rings with applications to 2-D convolution. 81f:10002
 Malyshev, A. V. The critical determinant of the region $|x| + |y| < 1$. (Supplement to the article "The application of an electronic computer to the proof of a certain conjecture of Minkowski from the geometry of numbers" [Zap. Nauch. Sem. Leningrad. Otdel. Mat. Inst. Steklov (LOMI) 71 (1977), 163-180; MR 58 #27801]). (Russian) 81k:10049
 Rabin, Michael O. Probabilistic algorithm for testing primality. 81f:10003

secondary classifications:

- Gostin, Gary B. A factor of F_{17} . (81f:10010)
 Gupta, Hansraj Powers of 2 and sums of distinct powers of 3. (81g:10016)
 Hags, Peter, Jr. Unitary hyperperfect numbers. (81m:10008)
 Lehmer, D. H. A history of the sieve process. (See 81i:00002)
 Rabung, John R. Some progression-free partitions constructed using Folkman's method. (81a:05024)
 Reile, H. J. J. Computations concerning the conjecture of Mertens. (81e:10055)
 Takada, Ichiro Computation of cyclic parts of Steinhilber problem for power 8. (81f:10014)
 Wagstaff, Samuel S., Jr. Greatest of the least primes in arithmetic progressions having a given modulus. (81e:10038)
 Wilker, Peter An efficient algorithmic solution of the Diophantine equation $u^2 + 5v^2 = m$. (81m:10021)
 Wunderlich, Marvin C. A running time analysis of Brillhart's continued fraction factoring method. (81f:10011)
 Yorinaga, Masataka Carmichael numbers with many prime factors. (81m:10018)

10-06 Proceedings, conferences, etc.

- (Delange, H.) See Séminaire: Delange-Pisot-Poitou, 81h:10002a and Séminaire: Delange-Pisot-Poitou, 81h:10002b
 (Fomenko, O. M.) See Analytic number theory and the theory of functions, 81m:10003
 (Kuz'mina, G. V.) See Analytic number theory and the theory of functions, 81m:10003
 (Malyshev, A. V.) See Studies in number theory, 81f:10004
 (Nathanson, Melvyn B.) See Number theory, 81a:10004
 (Pisot, C.) See Séminaire: Delange-Pisot-Poitou, 81h:10002a and Séminaire: Delange-Pisot-Poitou, 81h:10002b
 (Pisot, Georges) See Séminaire: Delange-Pisot-Poitou, 81h:10002a and Séminaire: Delange-Pisot-Poitou, 81h:10002b
 (Tahtadjan, L. A.) See Analytic number theory and the theory of functions, 81a:10003
 (Venkov, A. B.) See Analytic number theory and the theory of functions, 81a:10003
 Analytic number theory and the theory of functions ★ Аналитическая теория чисел и теория функций. 2. (Russian) [Analytic number theory and the theory of functions. 2] 81a:10003
 ★ Аналитическая теория чисел и теория функций. 3. (Russian) [Analytic number theory and the theory of functions. 3] 81m:10003
 Carbondale, Ill. ★ Number theory, Carbondale 1979. 81a:10004
 Collection:
 Number theory ★ Сборник работ по теории чисел. 4. (Russian) [Collection of articles on number theory. 4] 81c:10002

Conference:

- Southern Illinois Number Theory ★ Number theory, Carbondale 1979. 81a:10004
 Experimental number theory ★ Experimental number theory. (Japanese) 81m:10004
 Function theory ★ Аналитическая теория чисел и теория функций. 2. (Russian) [Analytic number theory and the theory of functions. 2] 81a:10003
 ★ Аналитическая теория чисел и теория функций. 3. (Russian) [Analytic number theory and the theory of functions. 3] 81m:10003
 Number theory ★ Аналитическая теория чисел и теория функций. 2. (Russian) [Analytic number theory and the theory of functions. 2] 81a:10003
 ★ Number theory, Carbondale 1979. 81a:10004
 ★ Experimental number theory. (Japanese) 81m:10004
 ★ Сборник работ по теории чисел. 4. (Russian) [Collection of articles on number theory. 4] 81c:10002
 ★ Исследования по теории чисел. 6. (Russian) [Studies in number theory. 6] 81f:10004
 ★ Séminaire Delange-Pisot-Poitou, 20e année: 1978/1979. Théorie des nombres. Fascicule 1: Exposés 1 à 21. (French) [Seminar Delange-Pisot-Poitou, 20th Year: 1978/1979. Number Theory. Part 1: Exposés 1-21] 81h:10002a
 ★ Séminaire Delange-Pisot-Poitou, 20e année: 1978/1979. Théorie des nombres. Fascicule 2: Exposés 22 à 33, Index cumulatif Ire à 20e années, 1959/1960 à 1978/1979. (French) [Seminar Delange-Pisot-Poitou, 20th Year: 1978/1979. Number Theory. Part 2: Exposés 22-33, Cumulative Index of the First Twenty Years, 1959/1960-1978/1979] 81h:10002b
 ★ Аналитическая теория чисел и теория функций. 3. (Russian) [Analytic number theory and the theory of functions. 3] 81m:10003
 ★ Séminaire de Théorie des Nombres, 1979-1980. (French) [Seminar on Number Theory, 1979-1980] 81m:10005
 Representation of numbers by quadratic forms ★ Сборник работ по теории чисел. 4. (Russian) [Collection of articles on number theory. 4] 81c:10002

Séminaire:

- Delange-Pisot-Poitou ★ Séminaire Delange-Pisot-Poitou, 20e année: 1978/1979. Théorie des nombres. Fascicule 1: Exposés 1 à 21. (French) [Seminar Delange-Pisot-Poitou, 20th Year: 1978/1979. Number Theory. Part 1: Exposés 1-21] 81h:10002a
 ★ Séminaire Delange-Pisot-Poitou, 20e année: 1978/1979. Théorie des nombres. Fascicule 2: Exposés 22 à 33, Index cumulatif Ire à 20e années, 1959/1960 à 1978/1979. (French) [Seminar Delange-Pisot-Poitou, 20th Year: 1978/1979. Number Theory. Part 2: Exposés 22-33, Cumulative Index of the First Twenty Years, 1959/1960-1978/1979] 81h:10002b

Seminar:

- Number Theory ★ Séminaire de Théorie des Nombres, 1979-1980. (French) [Seminar on Number Theory, 1979-1980] 81m:10005
 Studies in number theory ★ Исследования по теории чисел. 6. (Russian) [Studies in number theory. 6] 81f:10004
 Symposium:
 Experimental Number Theory ★ Experimental number theory. (Japanese) 81m:10004
 Talence ★ Séminaire de Théorie des Nombres, 1979-1980. (French) [Seminar on Number Theory, 1979-1980] 81m:10005

secondary classifications:

- (Nikol'skii, S. M.) See Theory of numbers, mathematical analysis and their applications, (81a:00014)
 (Vinogradov, I. M.) See Theory of numbers, mathematical analysis and their applications, (81a:00014)
 Birthday:
 Nikol'skii, S. M. ★ Theory of numbers, mathematical analysis and their applications. (81a:00014)
 Mathematical analysis ★ Theory of numbers, mathematical analysis and their applications. (81a:00014)
 Number theory ★ Séminaire de Théorie des Nombres 1978-1979. (French) [Seminar on number theory 1978-1979] (81a:12001)
 Séminaire:
 Théorie des Nombres ★ Séminaire de Théorie des Nombres 1978-1979. (French) [Seminar on number theory 1978-1979] (81a:12001)
 Theory of numbers, mathematical analysis and their applications ★ Theory of numbers, mathematical analysis and their applications. (81a:00014)

10Axx Elementary number theory (For analogues in number fields, see 12A05.)

- Erdős, Paul (with Graham, Ronald L.) Old and new problems and results in combinatorial number theory: van der Waerden's theorem and related topics. 81f:10005
 Problems and results in number theory and graph theory. 81m:10006
 Nine little known problems in combinatorial number theory. (Norwegian. English summary) 81k:10001
 Graham, Ronald L. See Erdős, Paul, 81f:10005

10A05 Multiplicative structure of the integers (GCD, etc.)

- Caro, Yair On a division property of consecutive integers. 81g:10003
 Kopetzky, Hans Günther Über natürliche Zahlen n mit der Eigenschaft $\{(an, bn)\} = 1$. 81h:10003
 Reich, Daniel Partitioning integers using a finitely generated semigroup. 81c:10003
 Schütz, Christian Eine Verallgemeinerung des kleinen Satzes von Fermat. 81a:10005
 Surányi, János Some proofs about the uniqueness of the prime number factorization of the integers. (Hungarian) 81d:10003

secondary classifications:

- Kalužnin, L. A. ★The fundamental theorem of arithmetic. (81e:10001)
 (Levine, Daniel A.) See Vorobiov, M. M., (81f:10001)
 (McLarnan, Timothy) See Vorobiov, M. M., (81f:10001)
 Robinson, David Foster Egyptian fractions via Greek number theory. (81c:10013)
 Vorobiov, M. M. ★Criteria for divisibility. (81f:10001)
 (Wadhwa, Ram S.) See Kalužnin, L. A., (81f:10001)

10A10 Congruences, primitive roots

- Faiziev, R. F. Two general criteria of prime numbers and some indeterminate equations. (Russian. Tajiki summary) 81g:10004
 Gallian, Joseph A. (with Rusin, David J.) Factoring groups of integers modulo n . 81c:10004
 Haggard, Paul W. (with Kiltinen, John O.) Binomial expansions modulo prime powers. 81g:10005
 Haight, J. A. Systèmes recouvrants de congruences. 81k:10002
 Covering systems of congruences, a negative result. 81e:10003
 Hansen, Rodney T. See Swanson, Leonard G., 81b:10003
 Huang, Chih Ping See Shue, Jau Shyong, 81j:10001
 Kiltinen, John O. See Haggard, Paul W., 81g:10005
 Kulpers, L. Der Wolstenholmesche Satz. 81k:10003
 Miller, R. L. See Reed, I. S.; et al., 81b:10002
 Morgado, José Some remarks on two generalizations of Euler's theorem. 81b:10004
 Rao, K. Nageswara Some analogues of the Hall polynomial. 81d:10004
 Reed, I. S. (with Truong, T. K.; Miller, R. L.) A new algorithm for computing primitive elements in the field of Gaussian complex integers modulo a Mersenne prime. 81b:10002
 Rusin, David J. See Gallian, Joseph A., 81c:10004
 Shue, Jau Shyong (with Huang, Chih Ping) A note on a complete residue system in the integral quaternions. 81j:10001
 Swanson, Leonard G. (with Hansen, Rodney T.) An extension of Rédei's generalization of the Euler-Fermat theorem. 81b:10003
 Truong, T. K. See Reed, I. S.; et al., 81b:10002

secondary classifications:

- Babaev, G. (with Ismoilov, D.) The number of solutions of a pair of congruences. (Russian. Tajiki summary) (81j:10003)
 Chang, I Chen (with Muller, P.) The ancient Chinese pearl in number theory—the Chinese remainder theorem. (81m:01004)
 Ismoilov, D. See Babaev, G., (81j:10003)
 Kløve, Torleiv On a conjecture of Bruckman. (81d:10007)
 Moser, William O. J. (with Newborn, Monroe M.) Placing counters to illustrate Burnside's lemma. (81f:20031)
 Muller, P. See Chang, I Chen, (81m:01004)
 Newborn, Monroe M. See Moser, William O. J., (81f:20031)
 Rieger, Georg J. Sur les nombres de Cullen. (81d:10006)
 Sen, Shankar On explicit reciprocity laws. (81a:12018)
 Vihinskii, V. A. The Mayan calendar and the numeration system of residue classes. (81a:01002)

10A15 Power residues, reciprocity

- Buell, Duncan A. (with Williams, Kenneth S.) An octic reciprocity law of Scholz type. 81a:10006
 Burde, Klaus Eine Verteilungseigenschaft der Legendresymbole. 81g:10006
 Pythagoräische Tripel und Reziprozität in Galoisfeldern. 81k:10005
 Evans, Ronald J. Biocitic Gauss sums and sixteenth power residue difference sets. 81h:10004
 The 2th power character of 2. 81f:10006
 Hudson, Richard H. (with Williams, Kenneth S.) On the least quadratic nonresidue of a prime $p \equiv 3 \pmod{4}$. 81g:10007
 Rotkiewicz, A. The solution of W. Sierpiński's problem. (Italian. English summary) 81g:10008
 Williams, Kenneth S. On Eisenstein's supplement to the law of cubic reciprocity. 81f:10007
 See also Buell, Duncan A., 81a:10006 and Hudson, Richard H., 81g:10007

secondary classifications:

- Moreno, Carlos Julio The higher reciprocity laws: an example. (81j:12006)
 Rotkiewicz, A. See Van der Poorten, Alfred J., (81h:10010)
 Van der Poorten, Alfred J. (with Rotkiewicz, A.) On strong pseudoprimes in arithmetic progressions. (81h:10010)

10A20 Number-theoretic functions, related numbers; inversion formulas

- Chidambaraswamy, J. Generalized Dedekind ψ -functions with respect to a polynomial. I. 81m:10007a
 Generalized Dedekind ψ -functions with respect to a polynomial. II. 81m:10007b
 Cohen, Graeme L. (with Hags, Peter, Jr.) On the number of prime factors of n if $\varphi(n)|(n-1)$. 81j:10002
 Diananda, P. H. Bounds for $\varphi(x, n) - [x]\varphi(n)/n$. 81g:10009
 Edgar, Hugh M. See Hoggatt, Verner E., Jr., 81h:10005
 Elliott, P. D. T. A. On sums of an additive arithmetic function with shifted arguments. 81i:10006
 Ewell, John A. Arithmetical consequences of two identities of B. Gordon. 81c:10005
 Frey, H. A. M. Über unitär perfekte Zahlen. 81a:10007

- Guaraldo, Rosalind On the density of the image sets of certain arithmetic functions. II. 81a:10008a

- On the density of the image sets of certain arithmetic functions. III. 81a:10008
 Guy, Richard K. (with Selfridge, J. L.) Corrigendum to: "What drives an aliquot sequence?" [Math. Comp. 29 (1975), 101–107; MR 52 #5542]. 81f:10008
 Hags, Peter, Jr. Outline of a proof that every odd perfect number has at least eight prime factors. 81k:10004

- Unitary hyperperfect numbers. 81m:10008

- See also Cohen, Graeme L., 81j:10002

- Hansen, Rodney T. (with Swanson, Leonard G.) Vinogradov's Möbius inversion theorem. 81i:10007
 Hausman, Miriam Generalization of a theorem of Landau. 81d:10005
 An upper limit property of the Euler function. 81k:10005
 Hoggatt, Verner E., Jr. (with Edgar, Hugh M.) Another proof that $\varphi(F_n) \equiv 0 \pmod{4}$ for all $n > 4$. 81h:10005
 Ivč, Aleksandar A procedure for proving identities containing arithmetic function. (Serbo-Croatian) 81h:10006
 (with Schwarz, Wolfgang) Remarks on some number-theoretical functional equations. 81g:10010

- Krishna, K. A proof of an identity for multiplicative functions. 81e:10004
 Loxton, John H. (with Sanders, J. W.) On an inversion theorem of Möbius. 81k:10006
 Makowski, Andrzej Some equations involving the sum of divisors. 81b:10004
 Mercier, Arnel Sommes de fonctions additives restreintes à une classe de congruences. 81a:10009
 Nowacki, Zbigniew Monotonicity of multiplicative functions. 81c:10006
 Nyulassyová, Eva On multiplicatively k -thin sets. (Slovak and Russian summary) 81f:10009

- Pinzur, Laurence Denominators of Dedekind sums. 81g:10011
 Pomerance, Carl (with Selfridge, J. L.) Proof of D. J. Newman's coprime mapping conjecture. 81i:10008

- Redmond, Don Some remarks on a paper of A. Ivč. 81h:10007
 Rizzi, Bruno Extension of the notions of additivity and complete additivity. (Italian. English summary) 81e:10005

- Robbins, Neville A class of solutions of the equation $\sigma(n) = 2n + 1$. 81k:10007

- Sahn, R. P. Perfect Dedekind's number. 81c:10007

- A note on the Dedekind's function $g(x) = \prod_{m=1}^{\infty} (1 + x^m)$. 81c:10008

- Sanders, J. W. See Loxton, John H., 81k:10006
 Schwarz, Wolfgang See Ivč, Aleksandar, 81g:10010
 Selfridge, J. L. See Guy, Richard K., 81f:10008 and Pomerance, Carl, 81i:10008
 Stinson, Douglas The distance between units in rings—an algorithmic approach. 81i:10009

- Swanson, Leonard G. See Hansen, Rodney T., 81i:10007

- Walum, Herbert A recurrent pattern in the list of quadratic residues mod a prime and in the values of the Liouville λ function. 81i:10010

secondary classifications:

- Cohen, Graeme L. (with Hendy, M. D.) Polygonal supports for sequences of primes. (81j:10006)
 Erdős, Paul (with Ruzsa, Imre Z.) On the small sieve. I. Sifting by primes. (81k:10075)
 Fegan, H. D. The heat equation and modular forms. (81k:22006)
 Feingold, Alex Jay A hyperbolic GCM Lie algebra and the Fibonacci numbers. (81k:17009)

- Groz, Wolfgang Mittelwert der Eulerschen φ -Funktion und des Quadrates der Dirichletschen Teilerfunktion in algebraischen Zahlkörpern. (English summary) (81c:12002)

- Hendy, D. See Cohen, Graeme L., (81j:10006)

- Krajačuk, V. Ju. A Diophantine representation of perfect numbers. (Russian. English summary) (81j:10087)

- Li, Kung Ch'ing A note on identities for series of the type $\sum f(n)\mu(n)n^{-s}$. (81k:10062)
 Peretti, Aldo New insights for old problems. I. Asymptotic exact formulas for the number of twin, Mersenne & Fermat primes, solutions of Fermat's equation, etc. (81a:10057a)

- Errata: "New insights for old problems. I." (81a:10057b)

- New insights for old problems. II. Asymptotic exact formulas for Goldbach partitions, prime numbers of the form $n^2 + a$. (81a:10057c)

- Pomerance, Carl Popular values of Euler's function. (81k:10076)

- Ruzsa, Imre Z. Arithmetical functions. I. (Hungarian. English summary) (81k:10074a)
 See also Erdős, Paul, (81k:10075)

- Sarkisjan, G. Z. The class of arithmetic functions that are calculated with the aid of systems of functional elements. (Russian. Armenian summary) (81d:03043)
 Yorinaga, Masataka Carmichael numbers with many prime factors. (81m:10018)

10A21 Counting functions

- Babaev, G. (with Ismoilov, D.) The number of solutions of a pair of congruences. (Russian. Tajiki summary) 81j:10003
 Ismoilov, D. See Babaev, G., 81j:10003
 Rieger, Georg J. Sur les nombres de Cullen. 81d:10006
 Stein, Alan H. Exponential sums related to binomial coefficient parity. 81k:10008

secondary classifications:

- Dupont, Jean-Pierre (with Dussaud, René; Idée, Edwige) Relations fonctionnelles linéaires réduites. (81j:10016)
 Dussaud, René See Dupont, Jean-Pierre; et al., (81j:10016)
 Idée, Edwige See Dupont, Jean-Pierre; et al., (81j:10016)
 Jordan, J. H. (with Walch, Ray; Wisner, R. J.) Triangles with integer sides. (81f:05013)
 Mays, Michael E. A lower bound on the number of finite simple groups. (81k:20027)
 Walch, Ray See Jordan, J. H.; et al., (81f:05013)
 Wisner, R. J. See Jordan, J. H.; et al., (81f:05013)

10A22 Abstract theory of number-theoretic functions

- Eugen, Franco (with Rizzi, Bruno) An incidence algebra on rational numbers. (Italian summary) **81k:10009**
 Hayashi, Mitsutoshi The algebraic function fields of number-theoretic functions. (Japanese) **81j:10004**
 Rizzi, Bruno See Eugen, Franco, **81k:10009**

secondary classifications:

- Hammanthachari, J. Some number-theoretic Boolean rings. (**81k:06024**)
 Hu, Ch'ing Hsian On a ring of Dirichlet series. (**81h:10060**)
 Semp, Carlo L'opération d'élagage. (Italian summary) (**81f:94012**)

10A25 Elementary prime number theory, factorization

- Baillie, Robert (with Wagstaff, Samuel S., Jr.) Lucas pseudoprimes. **81j:10005**
 Cohen, Graeme L. On odd perfect numbers. II. Multiperfect numbers and quasiperfect numbers. **81m:10009**
 (with Hendy, M. D.) Polygonal supports for sequences of primes. **81j:10006**
 Cornack, G. V. (with Williams, H. C.) Some very large primes of the form $k \cdot 2^n + 1$. **81i:10011**
 Crandall, R. E. (with Penk, M. A.) A search for large twin prime pairs. **81a:10010**
 Duffy, L. Richard The Duffinian numbers. **81c:10009**
 Frame, J. Sutherland Factors of the binomial circulant determinant. **81j:10007**
 Gostin, Gary B. A factor of F_{17} . **81f:10010**
 Grundhöfer, Theo Über die Zahlen der Form $nl+k$. **81h:10008**
 Hendy, M. D. See Cohen, Graeme L., **81j:10006**
 Knopfmacher, John Recursive formulae for prime numbers. **81j:10008**
 Langevin, Michel Plus grand facteur premier d'entiers en progression arithmétique. **81a:10011**
 Facteurs premiers des coefficients binomiaux. **81m:10010**
 Mignotte, Maurice Test de primalité. (English summary) **81i:10012**
 Nankar, M. L. History of perfect numbers. **81h:10009a**
 See also Valdy, A. M., **81h:10009b**
 Nickel, Laura See Noll, Curt, **81k:10010**
 Noll, Curt (with Nickel, Laura) The 25th and 26th Mersenne primes. **81k:10010**
 Penk, M. A. See Crandall, R. E., **81a:10010**
 Puca, Antimo Criteria for divisibility by 7 and by 13. (Italian) **81a:10012**
 Rotkiewicz, A. See Van der Poorten, Alfred J., **81h:10010**
 Singh, Dinesh A simple proof of Bertrand's postulate. **81j:10009**
 Stubblefield, Beauregard Lower bounds for odd perfect numbers (beyond the googol). **81m:10011**
 Turk, Johannes Wilhelmus Maria ★ Multiplicative properties of neighbouring integers. **81j:10012**
 Valdy, A. M. Comment on: "History of perfect numbers" [Gaṇita Bhāratī 1 (1979), no. 1-2, 7-8; MR 81h:10009a] by M. L. Nankar. **81h:10009b**
 Vanden Eynden, Charles Proofs that $\Sigma 1/p$ diverges. **81j:10013**
 Van der Poorten, Alfred J. (with Rotkiewicz, A.) On strong pseudoprimes in arithmetic progressions. **81h:10010**
 Wagstaff, Samuel S., Jr. See Baillie, Robert, **81j:10005**
 Weintraub, Sol A large prime gap. **81k:10011**
 Williams, H. C. See Cornack, G. V., **81i:10011**
 Wunderlich, Marvin C. A running time analysis of Brillhart's continued fraction factoring method. **81f:10011**

secondary classifications:

- Blakley, Bob (with Blakley, G. R.) Security of number-theoretic public key cryptosystems against random attack. I. (**81g:94041a**)
 (with Blakley, G. R.) Security of number-theoretic public key cryptosystems against random attack. II. (**81g:94041b**)
 (with Blakley, G. R.) Security of number-theoretic public key cryptosystems against random attack. III. (**81g:94041c**)
 Blakley, G. R. (with Borosh, I.) Rivest-Shamir-Adleman public key cryptosystems do not always conceal messages. (**81e:94026**)
 See also Blakley, Bob, (**81g:94041a**); Blakley, Bob, (**81g:94041b**) and Blakley, Bob, (**81g:94041c**)
 Borosh, I. See Blakley, G. R., (**81e:94026**)
 Brent, Richard P. The first occurrence of certain large prime gaps. (**81g:10002**)
 Powell, Barry J. Primitive densities of certain sets of primes. (**81k:10093**)
 Rabin, Michael O. Probabilistic algorithm for testing primality. (**81f:10003**)
 Rotkiewicz, A. The solution of W. Sierpiński's problem. (Italian. English summary) (**81g:10008**)
 Ryžova, N. P. An elementary proof of a theorem on primes in arithmetic progressions. (Russian) (**81k:10070**)
 Shamir, Adi Factoring numbers in $O(\log n)$ arithmetic steps. (**81g:68066**)
 Wilker, Peter Die irreduziblen Zahlen des Bereichs $\mathbb{Z}[\sqrt{-5}]$. (**81g:12004**)
 An efficient algorithmic solution of the Diophantine equation $u^2 + 5v^2 = m$. (**81m:10021**)
 Williams, H. C. A modification of the RSA public-key encryption procedure. (**81k:94041**)

10A30 Algorithms and expansions; digital properties {For metric results, see 10K10.}

- Abramov, S. A. Some estimates related to the Euclidean algorithm. (Russian) **81c:10010**
 Alouche, Jean-Paul Sur la conjecture de "Syracuse-Kakutani-Collatz". **81g:10014**
 Andreescu, Titu An extension of a problem in number theory. (Romanian) **81f:10012**
 Bernsteina, Leon Periodic algorithms and their application. **81a:10013**
 Châteauneuf, Jean p -adic representation of real numbers. I. (Romanian) **81k:10012a**

 p -adic representation of real numbers. II. (Romanian) **81k:10012b**

- Cowles, John Some congruence properties of three well-known sequences: two notes. **81g:10015**
 Deshpande, M. N. On generalisation of Pascal's triangle. **81k:10013**
 Djawadi, Mehdi Kennzeichnung von Mengen mit einer additiven Minimaleigenschaft. **81c:10011**
 Furno, Anne L. A bound on Kaprekar constants. **81h:10011b**
 See also Lapenta, J. F.; et al., **81h:10011a**
 Gupta, Hansraj Powers of 2 and sums of distinct powers of 3. **81g:10016**
 Keith, Michael Repdigit polygonal numbers. **81c:10012**
 Kemperman, J. H. B. On multiplying large periodic integers. I, II. **81j:10010**
 Klöve, Torleiv On a conjecture of Bruckman. **81d:10007**
 Lapenta, J. F. (with Furno, Anne L.; Pritchett, G. D.) An algorithm to determine self-producing r -digit g -adic integers. **81h:10011a**
 Lazard, C. See Lazard, D., **81a:10014**
 Lazard, D. (with Lazard, C.) Sinusoïdes binaires. **81a:10014**
 Liu, Wen A class of singular monotone functions and a metric property of binary decimals. (Chinese. English summary) **81j:10011**
 Pritchett, G. D. See Lapenta, J. F.; et al., **81h:10011a**
 Rieger, Georg J. Über die Schrittzahl beim Algorithmus von Harris und dem nach nächsten Ganzen. **81m:10012**
 Robinson, David Foster Egyptian fractions via Greek number theory. **81c:10013**
 Rybina, I. On the question of studying numbers with negative kernels in nonpositional codes. (Russian) **81f:10013**
 Sasi Kumar, V. On the digital root series. **81h:10012**
 Stewart, C. L. On the representation of an integer in two different bases. **81j:10012**
 Takada, Ichiro Computation of cyclic parts of Steinhaus problem for power 8. **81f:10014**
 Trigg, Charles W. Integers closed under reversal-subtraction. **81c:10006**
 Usov, L. P. Distribution of signs in part of the period of an infinite purely periodic fraction. (Russian) **81h:10013**

secondary classifications:

- Blakley, G. R. (with Borosh, I.) Knuth's iterated powers. (**81e:95026**)
 Borosh, I. See Blakley, G. R., (**81e:95026**)
 (Cantor, Georg) See Schubart, Hans, (**81g:10048**)
 Hehner, E. C. R. (with Horspool, R. N. S.) Corrigendum: "A new representation of the rational numbers for fast easy arithmetic" [SIAM J. Comput. 8 (1979), no. 2, 124-134; MR 80b:68027]. (**81f:68044**)
 Horspool, R. N. S. See Hehner, E. C. R., (**81f:68044**)
 Il'jasov, I. I. The structure of a sequence. (Russian) (**81i:10046**)
 Morito, Susumu (with Salkin, Harvey M.) Using the Blankinship algorithm to find the general solution of a linear Diophantine equation. (**81h:10021**)
 Salkin, Harvey M. See Morito, Susumu, (**81h:10021**)
 Schubart, Hans Irrationalitätskriterien nach Georg Cantor. (**81g:10048**)

10A32 Continued fractions {For approximation results, see 10F20; see also 30B70, 40A15.}

- Barkan, Philippe Sur des propriétés de congruence (mod 4) liées à l'équation de Pell-Fermat. (English summary) **81a:10015**
 Beskin, N. M. ★ Замечательные дроби. (Russian) [Remarkable fractions] **81k:10014**
 Carrer, Antonio Geometric deduction of an expansion of an arbitrary number in an infinite periodic continued fraction. (Italian) **81m:10013**
 Daul, Ernest Über eine Konstruktion von H. Schmidt. **81k:10015**
 Duport, Jean-Pierre (with Dussaud, René; Idée, Edwige) Fractions continues généralisées. **81j:10013**
 Dussaud, René See Duport, Jean-Pierre; et al., **81j:10013**
 Herzog, Fritz On the continued fractions of conjugate quadratic irrationalities. **81k:10016**
 Idée, Edwige See Duport, Jean-Pierre; et al., **81j:10013**
 Köhler, Günter Some more predictable continued fractions. **81g:10017**
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- Emeking, E. A. See Ahuja, J. C., 81e:10008
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10A50 Combinatorial number theory

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10Bxx Diophantine equations [See also 14Gxx.]

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10B16 Norm form equations

Feldman, N. I. Effective bounds of the solutions of certain Diophantine equations. 81c:10024

Györy, Kálmán (with Papp, Zoltán) On discriminant form and index form equations. 81g:10034

Norm form equations. 81f:10024

Sur une généralisation de l'équation de Thue-Mahler. (English summary)

81d:10010

Papp, Zoltán See Györy, Kálmán, 81g:10034

secondary classifications:

Bartels, Hans-Jochen Über Normen algebraischer Zahlen. (81k:12010)

10B20 Multiplicative equations

secondary classifications:

Garbanati, Dennis A. An algorithm for finding an algebraic number whose norm is a given rational number. (81k:12004)

10B25 Nonpolynomial equations

Dai, Zong Duo (with Feng, Xu Ning; Yu, Kun Rui) Integral solutions of $x^{1/a} + y^{1/a} = z^{1/a}$ and the degrees $[Q(p_1^{1/a}, p_2^{1/a}, \dots, p_r^{1/a}):Q]$. (Chinese) 81a:10028

Feng, Xu Ning See Dai, Zong Duo; et al., 81a:10028

Kiss, Ernest Une démonstration simple d'un théorème d'arithmétique. (Romanian summary) 81h:10024

Plymen, R. J. Cyclotomic integers and the inner invariant of Connes. 81k:10028

Tijdeman, R. Exponential Diophantine equations. 81g:10035

Yan, Fa Xiang On a class of Diophantine equations. 81m:10029

Yu, Kun Rui See Dai, Zong Duo; et al., 81a:10028

secondary classifications:

Matijasević, Ju. V. Algorithmic unsolvability of exponential Diophantine equations with three unknowns. (Russian) (81f:03055)

10B30 Equations in sufficiently many variables [See also 10J10.]

secondary classifications:

Arhipov, G. I. (with Karacuba, A. A.; Čubarikov, V. N.) Trigonometric integrals. (Russian) (81f:10050)

Čubarikov, V. N. See Arhipov, G. I.; et al., (81f:10050)

Karacuba, A. A. See Arhipov, G. I.; et al., (81f:10050)

Schmidt, Wolfgang M. Small zeros of additive forms in many variables. II. (81a:10027)

10B35 Representation problems [See also 10J10.]

An, Chung Ming (with Stein, Alan H.) Representations of integers by positive definite forms over arithmetic progressions. 81k:10029

Arenstorf, R. F. (with Johnson, David) Uniform distribution of integral points on 3-dimensional spheres via modular forms. 81i:10023

Johnson, David See Arenstorf, R. F., 81i:10023

Mitek, Jerzy Generalization of a theorem of Erdős and Surányi. 81j:10026

Stein, Alan H. See An, Chung Ming, 81k:10029

Val'fis, Anna Über die simultane Darstellung zweier ganzer Zahlen durch quadratische und lineare Formen. 81h:10025

secondary classifications:

(Baker, Alan) See Heath-Brown, D. R., (81m:10042)

Djavad, Mehdi Kennzeichnung von Mengen mit einer additiven Minimaleigenschaft. (81c:10011)

Gupta, Hansraj Powers of 2 and sums of distinct powers of 3. (81g:10016)

Heath-Brown, D. R. On a paper: "On the least integers represented by the genera of binary quadratic forms" [Acta Arith. 18 (1971), 137-144; MR 47 #8437] by A. Baker and A. Schinzel. (81m:10042)

Henstridge, J. D. (with Praeger, Cheryl E.) Note on primitive permutation groups and a Diophantine equation. (81k:20003)

Hooley, Christopher On the numbers that are representable as the sum of two cubes. (81d:10036)

Praeger, Cheryl E. See Henstridge, J. D., (81k:20003)

(Schinzel, A.) See Heath-Brown, D. R., (81m:10042)

10B40 p -adic and power series fields

secondary classifications:

Koblitz, Neal The p -adic approach to solutions of equations over finite fields. (81d:10002)

Néron, André Hauteurs et fonctions thêta. (English summary) (81k:14022)

Prestel, Alexander Artin's conjecture on p -adic number fields. (81j:10029)

10B45 Diophantine inequalities

Liu, Ming Chit (with Ng, Shu Ming; Tsang, Kai Man) An improved estimate for certain Diophantine inequalities. 81f:10025

Ng, Shu Ming See Liu, Ming Chit; et al., 81f:10025

Tsang, Kai Man See Liu, Ming Chit; et al., 81f:10025

secondary classifications:

Schnabel, Stephen Hoel Heights in number fields. (French summary) (81c:12025)

10B99 None of the above, but in this section

Lewis, D. J. (with Schinzel, A.) Quadratic Diophantine equations with parameters. 81m:10030

Ruohonen, Keijo Hilbert's tenth problem. (Swedish. English summary) 81m:10031

Schinzel, A. See Lewis, D. J., 81m:10030

secondary classifications:

Davenport, J. H. The computerisation of algebraic geometry. (81h:14001)

Koppel, Moshe Some decidable Diophantine problems: positive solution to a problem of Davis, Matijasević and Robinson. (81a:10069)

Schinzel, A. Addendum and corrigendum to the paper: "Abelian binomials, power residues and exponential congruences" [Acta Arith. 32 (1977), no. 3, 245-274; MR 55 #2829]. (81g:12005)

10Cxx Forms (especially quadratic) (For quadratic forms in linear algebra, see 15A63.)

10C01 Forms over general fields (especially quadratic)

Bäni, Werner Inner product spaces of infinite dimension; on the lattice method. 81f:10026

Cordes, Craig M. (with Ramsey, John R., Jr.) Quadratic forms over quadratic extensions of fields with two quaternion algebras. 81e:10017

Gross, Herbert ★ Quadratic forms in infinite-dimensional vector spaces. 81f:10027

Kula, Mięczyław On groups of k -fold Pfister forms. (Polish summary) 81m:10032

Ono, Takashi On the group of automorphisms of a Hopf map. 81k:10030

Ramsey, John R., Jr. See Cordes, Craig M., 81e:10017

Roiter, A. V. Roots of integral quadratic forms. (Russian) 81e:10018

Schulte, Manfred Eine Formel für schiefssymmetrische bilineare Räume mit vier maximal totalisotropen Unterräumen. 81f:10028

Solow, Anita E. The square class invariant for quadratic forms and the classification problem. 81m:10033

secondary classifications:

- Berman, Lawrence Pythagorean fields and the Kaplansky radical. (81f:12015)
 Grigor'ev, D. Ju. (with Ivanov, N. V.) On the Eisenbud-Levine formula over a perfect field. (Russian) (81h:14003)
 Ivanov, N. V. See Grigor'ev, D. Ju., (81h:14003)
 Nakamura, Yoshio On Witt algebras over a field, especially of characteristic 2. (81m:10040)

10C02 Forms over global rings and fields (especially quadratic)

- Cassels, J. W. S. On a problem of Pfister about systems of quadratic forms. 81h:10026
 Rationale quadratische Formen. 81i:10024
 Earnest, A. G. (with Estes, Dennis R.) Class groups in the genus and spinor genus of binary quadratic lattices. 81i:10025
 Estes, Dennis R. See Earnest, A. G., 81i:10025
 Hashimoto, Ki-ichiro Some examples of integral definite quaternary quadratic forms with prime discriminant. 81f:10029
 Maksimova, M. K. A combinatorial problem connected with the calculation of groups of automorphisms of positive quadratic forms. (Russian) 81f:10030
 Nikulin, V. V. Quotient-groups of groups of automorphisms of hyperbolic forms of subgroups generated by 2-reflections. (Russian) 81d:10011
 Scharlau, Rudolf On the Pythagoras number of orders in totally real number fields. 81g:10036
 Darstellbarkeit von ganzen Zahlen durch Quadratsummen in einigen totalreellen Zahlkörpern. 81m:10034
 Tausky, Olga Results concerning composition of sums of three squares. 81h:10027

secondary classifications:

- Ewing, John Obstructions to realizing equivariant Witt classes. (81a:57032)
 Nanda, V. C. See Narang, Asha, (81c:15014)
 Narang, Asha (with Nanda, V. C.) Smith normal form for matrices over Dedekind domains. (81c:15014)
 Nikulin, V. V. Finite groups of automorphisms of Kählerian $K3$ surfaces. (Russian) (81c:32033)
 Ranicki, Andrew Localization in quadratic L -theory. (81f:57037)

10C03 Forms over local rings and fields (especially quadratic)

- Colliot-Thélène, Jean-Louis Formes quadratiques sur les anneaux semi-locaux réguliers. 81a:10029

secondary classifications:

- Lewis, D. W. A product of Hermitian forms over quaternion division algebras. (81m:10039)

10C04 Forms over real fields

- Choi, Man Duen (with Lam, Tsit Yuen; Reznick, Bruce; Rosenberg, Alex) Sums of squares in some integral domains. 81h:10028
 (with Lam, Tsit Yuen; Reznick, Bruce) Real zeros of positive semidefinite forms. I. 81d:10012
 Knebusch, M. Signaturen, reelle Stellen und reduzierte quadratische Formen. 81k:10031
 Kula, Mieczysław (with Szczepanik, Lucyna; Szymiczek, Kazimierz) Quadratic forms over formally real fields with eight square classes. 81h:10011
 Lam, Tsit Yuen See Choi, Man Duen; et al., 81d:10012 and Choi, Man Duen; et al., 81h:10028
 Marshall, Murray Spaces of orderings. IV. 81m:10035
 Mimura, Yoshio On 2-lattices over real quadratic integers. 81m:10036
 Reznick, Bruce See Choi, Man Duen; et al., 81d:10012 and Choi, Man Duen; et al., 81h:10028
 Rosenberg, Alex See Choi, Man Duen; et al., 81h:10028
 Szczepanik, Lucyna See Kula, Mieczysław; et al., 81h:10011
 Szymiczek, Kazimierz See Kula, Mieczysław; et al., 81h:10011

secondary classifications:

- Brücker, Ludwig Reelle Divisoren. (81j:14014)
 Colliot-Thélène, Jean-Louis (with Sansuc, J.-J.) Fibrés quadratiques et composantes connexes réelles. (81c:14010)
 Craven, Thomas C. Intersections of real closed fields. (81i:12026)
 Pelling, M. J. Acknowledgement: "Regular simplices with rational vertices" [Bull. London Math. Soc. 9 (1977), no. 2, 199-200; MR 56 #3736]. (81e:52007)
 Sansuc, J.-J. See Colliot-Thélène, Jean-Louis, (81c:14010)
 Solov, Anita E. The square class invariant for quadratic forms and the classification problem. (81m:10033)

10C05 Quadratic, bilinear and Hermitian forms [See also 10E25.], general theory (including Witt rings of quadratic forms)

- Baez, R. Über die Stufe von Dedekind Ringen. 81h:10029
 Carlson, Gunnar Wu invariants of Hermitian forms. 81m:10037
 Conner, Pierre E. ★Notes on the Witt classification of Hermitian innerproduct spaces over a ring of algebraic integers. 81i:10026
 Craven, Thomas C. An application of Pólya's theory of counting to an enumeration problem arising in quadratic form theory. 81j:10027
 Edwards, Bruce H. Rotations and discriminants of quadratic spaces. 81a:10030
 Elman, Richard (with Lam, Tsit Yuen; Wadsworth, Adrian R.) Pfister ideals in Witt rings. 81g:10037

(with Lam, Tsit Yuen; Wadsworth, Adrian R.) Quadratic forms under multiquadratic extensions. 81j:10028

- Gerstein, Larry J. Unimodular quadratic forms over global function fields. 81a:10031
 Gibbs, David E. The computation of $W_2(\pi, \omega; \mathbb{Z})$ for π an abelian 2-group. 81h:10030
 Hsia, J. S. On the classification of unimodular quadratic forms. 81a:10038
 Lam, Tsit Yuen See Elman, Richard; et al., 81g:10037 and Elman, Richard; et al., 81j:10028
 Lee, Y. C. A Witt's theorem for unimodular lattices. 81a:10032
 Lewis, D. W. A note on Hermitian and quadratic forms. 81h:10031
 A product of Hermitian forms over quaternion division algebras. 81m:10039
 Malyšev, A. V. (with Pačev, U. M.) On the arithmetic of second-order matrices. (Russian) 81k:10032
 Marshall, Murray The Witt ring of a space of orderings. 81h:10012
 Morin-Strom, Karl A. Witt's theorem for modular lattices. 81d:10013
 Nakamura, Yoshio On Witt algebras over a field, especially of characteristic 2. 81m:10040
 O'Meara, O. T. On indecomposable quadratic forms. 81i:10027
 Pačev, U. M. See Malyšev, A. V., 81k:10032
 Śladek, Andrzej Grothendieck and Witt groups in the reduced theory of quadratic forms. 81m:10041
 Snapper, Ernst Quadratic spaces over finite fields and codes. 81k:10033
 Tsipulov, B. Formulas of Weil-Eichler type for certain quaternary quadratic forms. (Russian) 81k:10034
 Wadsworth, Adrian R. See Elman, Richard; et al., 81g:10037 and Elman, Richard; et al., 81j:10028
 Wagner, Richard C. On odd Hermitian forms. 81c:10025
 Watson, G. L. Determination of a binary quadratic form by its values at integer points. 81e:10019

secondary classifications:

- Adem, José On maximal sets of anticommuting matrices. (81k:15020)
 Barge, Jean An algebraic proof of a theorem of J. Milnor. (81k:57013)
 Bayer, Eva S -equivalence et congruence de matrices de Seifert: une conjecture de Trotter. (81b:57016)
 Edwards, Bruce H. On classifying Clifford algebras. (81b:15027)
 Fields, K. L. Stable, fragile and absolutely symmetric quadratic forms. (81a:10044)
 Fulton, John D. Gauss sums and solutions to simultaneous equations over $\text{GF}(2^n)$. (81c:12033)
 Hashimoto, Ki-ichiro On Brandt matrices associated with the positive definite quaternion Hermitian forms. (81i:10033)
 Hebenstreit, Helmut (with Suchy, Kurt) Polarization relations and dispersion equations for anisotropic moving media. (81f:78013)
 Johnson, Dennis Spin structures and quadratic forms on surfaces. (81m:57015)
 Kearton, C. Attempting to classify knot modules and their Hermitian pairings. (81b:57020)
 Leung, Kam W. The isomorphism theory of projective pseudo-orthogonal groups. (81g:20084)
 Levine, Jerome P. ★Algebraic structure of knot modules. (81f:57017)
 Marshall, Murray Spaces of orderings. IV. (81m:10035)
 Micall, Artibano (with Revoy, Ph.) Modules quadratiques. (81f:15035)
 Michel, Françoise Inversibilité des noeuds et idéaux ambiges. (English summary) (81e:57026)
 Revoy, Ph. See Micall, Artibano, (81f:15035)
 Stoltzfus, Neal W. Algebraic computations of the integral concordance and double null concordance group of knots. (81k:57018)
 Suchy, Kurt See Hebenstreit, Helmut, (81f:78013)

10C07 Class numbers of quadratic and Hermitian forms

- Peters, Meinhard Definite binary quadratic forms with class number one. 81k:10035
 Postnikov, A. G. A new derivation of a formula for the number of classes of binary quadratic forms of a negative discriminant in the function-field case. (Russian) 81b:10013

secondary classifications:

- Gerstein, Larry J. Unimodular quadratic forms over global function fields. (81a:10031)
 Skula, Ladislav Index of irregularity of a prime. (81c:12014)

10C10 Higher degree forms

- Györy, Kálmán On the greatest prime factors of decomposable forms at integer points. 81g:10038
 Terjanian, Guy Formes p -adiques anisotropes. 81i:10028

secondary classifications:

- Muro, Masakazu On prehomogeneous vector spaces related to binary cubic forms. I. The orbital decomposition in the real domain. (81c:14028)
 Tausky, Olga A Diophantine problem arising out of similarity classes of integral matrices. (81b:10010)

10C15 Analytic theory (Epstein's zeta function; relations with automorphic forms and functions)

- (Baker, Alan) See Heath-Brown, D. R., 81m:10042
 Heath-Brown, D. R. On a paper: "On the least integers represented by the genera of binary quadratic forms" [Acta Arith. 18 (1971), 137-144; MR 47 #8437] by A. Baker and A. Schinzel. 81m:10042
 Lu, Hong Wen A system of matrix Diophantine equations. 81e:10020

- (Schimel, A.) See Heath-Brown, D. R., 81m:10042
 Terras, Audrey The minima of quadratic forms and the behavior of Epstein and Dedekind zeta functions. 81m:10043
 Verner, Lawrence A singular series in characteristic p . (Russian summary) 81h:10032
 Waldspurger, Jean-Loup Relèvement et formes quadratiques à 4 variables. 81c:10026

secondary classifications:

- Harris, S. J. Number theoretical developments arising from the Siegel formula. (81a:12015)
 Hashimoto, Ki-ichiro Some examples of integral definite quaternary quadratic forms with prime discriminant. (81f:10029)
 Kitaoka, Yoshiyuki A remark on the transformation formula of theta functions associated to positive definite quadratic forms. (81k:10043)
 Lomadze, G. A. Cusp forms of prime level of nebentypus. I. (Russian) (81h:10035)
 Parry, Walter R. A negative result on the representation of modular forms by theta series. (81a:10034)
 Pizer, Arnold Theta series and modular forms of level p^2M . (81k:10040)
 Rallis, Stephen (with Schiffmann, Gérard) Weil representation. I. Intertwining distributions and discrete spectrum. (81j:22007)
 Schiffmann, Gérard See Rallis, Stephen, (81j:22007)

10C20 p -adic theory

- Prestel, Alexander Artin's conjecture on p -adic number fields. 81j:10029

secondary classifications:

- Haggard, Paul W. (with Kiltinen, John O.) Binomial expansions modulo prime powers. (81g:10005)
 Kiltinen, John O. See Haggard, Paul W., (81g:10005)
 Terjanian, Guy Formes p -adiques anisotropes. (81l:10028)

10C25 Minima of forms [See also 10E20.]

secondary classifications:

- Hans-Gill, R. J. (with Raka, Madhu) Positive values of inhomogeneous 5-ary quadratic forms of type (3, 2). (81k:10051)
 Raka, Madhu See Hans-Gill, R. J., (81k:10051)
 Schimel, A. (with Schlickewei, H. P.; Schmidt, Wolfgang M.) Small solutions of quadratic congruences and small fractional parts of quadratic forms. (81m:10063)
 Schlickewei, H. P. See Schimel, A.; et al., (81m:10063)
 Schmidt, Wolfgang M. See Schimel, A.; et al., (81m:10063)

10C30 Arithmetic properties of classical groups [See also 20Gxx.]

- Bartels, Hans-Jochen Definite arithmetische Gruppen. 81h:10033
 Grunewald, Fritz J. (with Helling, H.; Mennicke, Jens L.) SL_2 over complex quadratic number fields. I. 81c:10021
 (with Segal, Daniel) The solubility of certain decision problems in arithmetic and algebra. 81b:10014
 Helling, H. See Grunewald, Fritz J.; et al., 81c:10021
 James, David G. On the automorphisms of $\det(x_{ij})$. 81m:10044
 Mennicke, Jens L. See Grunewald, Fritz J.; et al., 81c:10021
 O'Meara, O. T. A survey of the isomorphism theory of the classical groups. 81m:10045
 Pierce, Stephen Divisibility questions in the general linear group. 81d:10014
 Segal, Daniel See Grunewald, Fritz J., 81b:10014

secondary classifications:

- Bartels, Hans-Jochen (with Kitaoka, Yoshiyuki) Endliche arithmetische Untergruppen der GL_n . (81m:12013a)
 Černousov, V. I. See Platonov, V. P., (81k:14019)
 Dye, Roger H. Interrelations of symplectic and orthogonal groups in characteristic two. (81c:20028)
 Maximal subgroups of $GL_{2n}(K)$, $SL_{2n}(K)$, $PGL_{2n}(K)$ and $PSL_{2n}(K)$ associated with symplectic polarities. (81j:20061)
 Günther, Georg (with Nolte, Wolfgang) Defining relations in orthogonal groups of characteristic two. (81f:20054)
 Ishihashi, Hiroyuki Generators of a symplectic group over a local valuation domain. (81g:20067)
 Generators of $U_n(V)$ over a quasi-semi-local semihereditary domain. (81e:14030)
 Kitaoka, Yoshiyuki Finite arithmetic subgroups of GL_n , II. (81m:12013b)
 See also Bartels, Hans-Jochen, (81m:12013a)
 Kneser, Martin Normalteiler ganzzahliger Spingruppen. (81e:20030)
 Nolte, Wolfgang See Günther, Georg, (81f:20054)
 Petčuk, V. M. Automorphisms of the groups SL_n , GL_n over certain local rings. (Russian) (81k:20061)
 Platonov, V. P. (with Černousov, V. I.) On the rationality of canonical Spin varieties. (Russian) (81k:14019)
 Remeslennikov, V. N. An algorithmic problem for nilpotent groups and rings. (Russian) (81c:20051)
 Rohlf, J. Die maximalen arithmetisch definierten Untergruppen zerfallender einfacher Gruppen. (81g:22015)
 Smith, Stephen D. A characterization of orthogonal groups over $GF(2)$. (81b:20017)
 Vogtmann, Karen Homology stability for $O_{n,n}$. (81b:10005)
 Welsfeller, Boris Abstract monomorphisms between big subgroups of some groups of type B_2 in characteristic 2. (81e:20050)

10C99 None of the above, but in this section

- Luminet, J. P. Relateurs arithmétiques stabilisés: imbrication des cycles et méthode de classification. (English summary) 81k:10036
 Meyer, Werner (with Perlis, Robert) On the genus of norm forms. 81f:10031
 Perlis, Robert See Meyer, Werner, 81f:10031

secondary classifications:

- Herrmann, Christian On a condition sufficient for the distributivity of lattices of linear subspaces. (81c:06006)
 Smith, Robert A. The average order of a class of arithmetic functions over arithmetic progressions with applications to quadratic forms. (81j:10061)

10Dxx Theory of automorphic and modular functions and forms [See also 12A67, 12B27, 14Gxx, 14Kxx, 22E50, 22E55, 30F35, 32Nxx; for relations with quadratic forms, see 10C15.]

secondary classifications:

- Aomoto, Kazuhiko See Yoshida, Hiroyuki, (81m:01084)
 (Deligne, Pierre) See Yoshida, Hiroyuki; et al., (81m:01084)
 Yoshida, Hiroyuki (with Aomoto, Kazuhiko) Works of P. Deligne. II. (Japanese) (81m:01084)

10D05 Modular and automorphic functions

- Almkvist, Gert The arithmetic-geometric mean and the arc length of the ellipse. (Swedish. English summary) 81m:10046
 Berndt, Bruce C. Chapter 14 of Ramanujan's second notebook. 81k:10037
 Fegan, H. D. Theta functions and modular jets. 81f:10032
 Parson, L. Alayne Dedekind sums and Hecke operators. 81f:10033

secondary classifications:

- Fay, John On the Riemann-Jacobi formula. (81g:14020)
 Harder, G. (with Li, Wen Ch'ing Winnie; Weisinger, J. R.) Dimensions of spaces of cusp forms over function fields. (81k:10042)
 Li, Wen Ch'ing Winnie See Harder, G.; et al., (81k:10042)
 Waldspurger, Jean-Loup Relèvement et formes quadratiques à 4 variables. (81c:10036)
 Weisinger, J. R. See Harder, G.; et al., (81k:10042)

10D07 Structure of modular groups and generalizations, arithmetic groups [See also 20H05, 20H10, 22E40.]

- Sheingorn, Mark Transitivity for the modular group. 81k:10038

secondary classifications:

- Brunner, A. M. (with Burns, Robert G.; Wiegold, James) On the number of quotients of one kind or another, of the modular group. (81e:20056)
 Burns, Robert G. See Brunner, A. M.; et al., (81e:20056)
 Grunewald, Fritz J. (with Helling, H.; Mennicke, Jens L.) SL_2 over complex quadratic number fields. I. (81c:10021)
 Helling, H. See Grunewald, Fritz J.; et al., (81c:10021)
 Jones, Gareth A. Noncongruence subgroups of the Hecke groups $G(\sqrt{d})$. (81h:20058)
 Kern-Isberner, Gabriele (with Rosenberger, Gerhard) Über Diskretheitsbedingungen und die Diophantische Gleichung $ax^2 + by^2 + cz^2 = dxyz$. (81m:20064)
 Leschinger, Karl Über die Verteilung elliptischer Fixpunkte Fuchscher Gruppen. (81j:30077)
 Margrave, Geoffrey Special arithmetic subgroups of Chevalley groups. (81h:22011)
 Mennicke, Jens L. See Grunewald, Fritz J.; et al., (81c:10021)
 Pospisov, V. P. Linear-fractional transformations of matrices. (Russian) (81f:15023)
 Rankin, R. A. Subgroups of the unimodular group defined by a congruence. (81c:20034)
 Rosenberger, Gerhard See Kern-Isberner, Gabriele, (81m:20064)
 Trojanowski, Witold Generalization of the modular group and its application. (81a:20057)
 Wiegold, James See Brunner, A. M.; et al., (81e:20056)

10D12 Modular forms, one variable

- Agrawal, M. K. (with Coates, John; Hunt, D. C.; Van der Poorten, Alfred J.) Elliptic curves of conductor 11. 81e:10022
 Bruggeman, R. W. ★Kuznetsov's proof of the Ramanujan-Petersen conjecture for modular forms of weight zero. 81h:10034
 Coates, John See Agrawal, M. K.; et al., 81e:10022
 Eichler, M. Über die Wirkung der Hecke-Operatoren auf Theta-Reihen. 81m:10047
 Harris, Michael A note on three lemmas of Shimura. 81c:10027
 Hunt, D. C. See Agrawal, M. K.; et al., 81e:10022
 Kenku, M. A. The modular curve $X_0(169)$ and rational isogeny. 81m:10048
 Kluit, Peter George ★Hecke operators on $\Gamma^*(N)$ and their traces. 81k:10039
 Kohnen, Winfried Modular forms of half-integral weight on $\Gamma_0(4)$. 81j:10030
 Lepowsky, James Lie algebras and combinatorics. 81d:10015
 Li, Wen Ch'ing Winnie L -series of Rankin type and their functional equations. 81a:10033
 Lomadze, G. A. Cusp forms of prime level of nebentypus. I. (Russian) 81h:10035
 Manin, Ju. I. Modular forms and number theory. 81f:10034
 Mestre, Jean-François Points rationnels de la courbe modulaire $X_0(169)$. 81h:10036
 Parry, Walter R. A negative result on the representation of modular forms by theta series. 81a:10034

- Pizer, Arnold Theta series and modular forms of level p^2M . **81k:10040**
 Scholl, A. J. On the algebra of modular forms on a congruence subgroup. **81i:10029**
 Sturm, Jacob Projections of C^∞ automorphic forms. **81g:10039**
 Van der Poorten, Alfred J. See Agrawal, M. K.; et al., **81e:10022**

secondary classifications:

- Adolphson, Alan The U_p -operator of Atkin on modular functions of level three. **(81a:10040)**
 Conway, J. H. (with Norton, S. P.) Monstrous moonshine. **(81j:20028)**
 Cox, David A. (with Parry, Walter R.) Torsion in elliptic curves over $k(i)$. **(81k:14035)**
 Ishii, Noburo Rational points on canonical models of principal congruence subgroups. **(81j:14023)**
 Kac, Victor G. A remark on the Conway-Norton conjecture about the "Monster" simple group. **(81m:20026)**
 Kuzmecz, N. V. On the Lehmer hypothesis. I. (Russian. English summary) **(81m:10052)**
 Miyawaki, Isao On the zeros of Dirichlet series associated with cuspforms on $\Gamma_0(N)$. **(81c:10031)**
 Norton, S. P. See Conway, J. H., **(81j:20028)**
 Parry, Walter R. See Cox, David A., **(81k:14035)**
 Shelgorn, Mark Boundary behavior of automorphic forms and transitivity for the modular group. **(81j:30079)**
 Tena Ayuso, Juan G. Rational subgroups over elliptic curves. (Spanish) **(81m:14021)**
 Thompson, J. G. Finite groups and modular functions. **(81j:20029)**
 Some numerology between the Fischer-Griess Monster and the elliptic modular function. **(81j:20030)**
 Vêtu, Jacques Le groupe cuspidal des courbes de Fermat. **(81k:14024)**

10D15 Automorphic forms, one variable

- Cohen, Henri Parité des valeurs propres des opérateurs de Hecke. **81k:10041**
 Goldfeld, Dorian Analytic and arithmetic theory of Poincaré series. **81i:10030**
 Harder, G. (with Li, Wen Ch'ing Winnie; Weisinger, J. R.) Dimensions of spaces of cusp forms over function fields. **81k:10042**
 Knopp, Marvin I. Hecke operators and an identity for the Dedekind sums. **81g:10040**
 Li, Wen Ch'ing Winnie Eisenstein series and decomposition theory over function fields. **81a:10035**
 See also Harder, G.; et al., **81k:10042**
 Saito, Hiroshi (with Yamauchi, Masatoshi) Trace formula of certain Hecke operators for $\Gamma_0(q^2)$. **81a:10036**
 Weisinger, J. R. See Harder, G.; et al., **81k:10042**
 Wolpert, Scott An asymptotic formula for the Taylor coefficients of automorphic forms. **81d:10016**
 Yamauchi, Masatoshi See Saito, Hiroshi, **81a:10036**

secondary classifications:

- Arenstorf, R. F. (with Johnson, David) Uniform distribution of integral points on 3-dimensional spheres via modular forms. **(81i:10023)**
 Deligne, Pierre Valeurs de fonctions L et périodes d'intégrales. **(81d:12009)**
 Fegan, H. D. The heat equation and modular forms. **(81k:22006)**
 Johnson, David See Arenstorf, R. F., **(81i:10023)**
 Koblitz, Neal See Deligne, Pierre, **(81d:12009)**
 Kudla, Stephen S. (with Millson, John J.) Harmonic differentials and closed geodesics on a Riemann surface. **(81a:53041)**
 Li, Wen Ch'ing Winnie Hecke-Weil-Jacquet-Langlands theorem revisited. **(81m:10058)**
 Millson, John J. See Kudla, Stephen S., **(81a:53041)**
 Ogas, Arthur See Deligne, Pierre, **(81d:12009)**
 Proskurin, N. V. Convolutions of Dirichlet series with Fourier coefficients of cusp form of weight 0. (Russian) **(81m:10059)**
 Saito, Hiroshi On lifting of automorphic forms. **(81f:10043)**

10D20 Modular and automorphic forms, several variables

- Adler, Allan Antiholomorphic involutions of analytic families of abelian varieties. **81f:10035**
 Akbarov, M. K. Estimate of the sums of Fourier coefficients of certain cusp forms. (Russian) **81i:10031**
 Andrianov, Anatoli N. (with Maloletkin, G. N.) Behavior of theta-series of genus n of indeterminate quadratic forms under modular substitution. (Russian) **81d:10017**
 Action of Hecke operator $T(p)$ on theta series. **81j:10031**
 Deligne, Pierre Variétés de Shimura: interprétation modulaire, et techniques de construction de modèles canoniques. **81i:10032**
 Erohin, V. A. Theta series of even unimodular 24-dimensional lattices. (Russian) **81i:10032**
 Evdokimov, S. A. Analytic properties of Euler products for congruence-subgroups of $Sp_2(\mathbb{Z})$. (Russian) **81d:10018**
 A property of Fourier coefficients of Siegel cusp forms of genus two. (Russian) **81j:10033**
 Freitag, Eberhard Berichtigung zu: "Die Invarianz gewisser von Thetareihen erzeugter Vektorräume unter Heckeoperatoren" [Math. Z. 156 (1977), no. 2, 141-155; MR 57 #16207]. **81f:10036**
 Golubeva, E. P. A simplified variant of a method for calculating the Fourier coefficients of a certain series. (Russian) **81b:10015**
 Hashimoto, Ki-ichiro On Brandt matrices associated with the positive definite quaternion Hermitian forms. **81i:10033**
 Kikawa, Yoshiyuki A remark on the transformation formula of theta functions associated to positive definite quadratic forms. **81k:10043**
 Knäuper, Friedrich Wilhelm Multiplizitäten "unendlich-ferner" Spitzen. (English summary) **81b:10016**
 Kurokawa, Nobushige Congruences between Siegel modular forms of degree two. **81f:10037**

- Maass, Hans Über eine Spezialschar von Modulformen zweiten Grades. II. **81a:10037**
 Über eine Spezialschar von Modulformen zweiten Grades. III. **81a:10038**
 Maloletkin, G. N. The construction of Siegel cusp forms of genus 2 from cusp forms of genus 1. (Russian) **81k:10044**
 See also Andrianov, Anatoli N., **81d:10017**
 Nagaoka, Shōyū Some congruence properties of Eisenstein series. **81d:10019**
 Raghavan, S. Singular modular forms of degree s . **81c:10028**
 Rallis, Stephen On a relation between SL_2 cusp forms and automorphic forms on orthogonal groups. **81c:10029**
 Rosati, Mario On a generalization of the Siegel-Conforto symplectic modular group $\Gamma(n, \Delta)$. (Italian. English summary) **81m:10049**
 Schwermer, Joachim Sur la cohomologie de $SL_n(\mathbb{Z})$ à l'infini et les séries d'Eisenstein. (English summary) **81i:10034**
 Shih, Kuang-yen Existence of certain canonical models. **81d:10020**
 Construction of arithmetic automorphic functions for special Clifford groups. **81b:10017**
 Shimura, Goro Automorphic forms and the periods of abelian varieties. **81j:10034**
 On some problems of algebraicity. **81f:10038**
 Tanihara, Kyūji A formula for the dimension of spaces of Siegel cusp forms of degree three. **81a:10039**
 A formula for the dimension of spaces of Siegel cusp forms of degree three. **81m:10050**
 Taniyama, Shigekazu Constructions of modular forms by means of transformation formulas for theta series. **81c:10023**
 Yoshida, Hiroyuki On an explicit construction of Siegel modular forms of genus 2. **81d:10021**
 Siegel's modular forms and the arithmetic of quadratic forms. **81m:10051**

secondary classifications:

- Lion, Gérard (with Vergne, Michèle) ★The Weil representation, Maslov index and theta series. **(81j:58075)**
 Maher, David P. Modular forms from codes. **(81f:94021)**
 Vergne, Michèle See Lion, Gérard, **(81j:58075)**

10D21 Hilbert modular forms and surfaces [See also 14J20.]

- Lepowsky, James (with Moody, Robert V.) Hyperbolic Lie algebras and quasiregular cusps on Hilbert modular surfaces. **81c:10030**
 Moody, Robert V. See Lepowsky, James, **81c:10030**
 Shimura, Goro The arithmetic of certain zeta functions and automorphic forms on orthogonal groups. **81g:10041**
 Thomas, Emery (with Vasquez, A. T.) On the resolution of cusp singularities and the Shintani decomposition in totally real cubic number fields. **81h:10037**
 Vasquez, A. T. See Thomas, Emery, **81h:10037**

secondary classifications:

- Deligne, Pierre (with Ribet, Kenneth A.) Values of abelian L -functions at negative integers over totally real fields. **(81m:12019)**
 Franke, Hans-Georg ★Kurven in Hilbertschen Modulflächen und Humbertschen Flächen im Siegel-Raum. (German) [Curves in Hilbert's modular surfaces and Humbert surfaces in the Siegel space] **(81e:14023)**
 Ribet, Kenneth A. See Deligne, Pierre, **(81m:12019)**

10D23 Congruence properties

- Ishii, Noburo Modular curves and Diophantine equations. **81h:10038**
 Olson, Loren D. The trace of Frobenius for elliptic curves with complex multiplication. **81b:10018**

secondary classifications:

- Eichler, M. Über die Wirkung der Hecke-Operatoren auf Thetareihen. **(81m:10047)**
 Ihara, Yasutaka Congruence relations and Shimura curves. **(81h:10039a)**
 Congruence relations and Shimura curves. II. **(81h:10039b)**
 Klöve, Torleiv Congruences for the partition function modulo powers of 5. **(81i:10020)**
 Kurokawa, Nobushige Congruences between Siegel modular forms of degree two. **(81f:10037)**

10D24 Relations with Dirichlet series

- Anderson, Robert J. On the Mertens conjecture for cusp forms. **81f:10039**
 Kuzmecz, N. V. Spectral methods in arithmetical problems. (Russian) **81h:10019**
 On the Lehmer hypothesis. I. (Russian. English summary) **81m:10052**
 The Petersson conjecture for cusp forms of weight zero and the Linnik conjecture. Sums of Kloosterman sums. (Russian) **81m:10053**
 Miyawaki, Isao On the zeros of Dirichlet series associated with cuspforms on $\Gamma_0(N)$. **81c:10031**
 Novodvorsky, Mark E. Automorphic L -functions for symplectic group $GS(4)$. **81c:10032**
 Platetski-Shapiro, I. I. Classical and adelic automorphic forms. An introduction. **81c:10033**
 Venkov, A. B. Spectral theory of automorphic functions, the Selberg zeta function and some problems of analytic number theory and mathematical physics. (Russian) **81c:10034**
 Zeros of ξ - and L -functions of imaginary quadratic fields and eigenvalues of the $PSL(2, \mathbb{Z})$ -automorphic Laplacian. (Russian) **81c:10035**
 Vignéras, Marie-France La fonction zêta de Selberg. **81d:10022**
 L'équation fonctionnelle de la fonction zêta de Selberg du groupe modulaire $PSL(2, \mathbb{Z})$. **81f:10040**

secondary classifications:

- Benko, Kornel (with Kothe, Monika; Semmler, Klaus-Dieter; Simon, Udo) Eigenvalues of the Laplacian and curvature. (81d:53028)
- Deligne, Pierre Valeurs de fonctions L et périodes d'intégrales. (81d:12009)
- Goldstein, Larry Joel Zeta functions and Eichler integrals. (81i:12015)
- (Koblitz, Neal) See Deligne, Pierre, (81d:12009)
- Kothe, Monika See Benko, Kornel; et al., (81d:53028)
- Kubert, Daniel S. (with Lang, Serge) Cartan-Bernoulli numbers as values of L -series. (81i:10027)
- Lang, Serge See Kubert, Daniel S., (81b:10027)
- Li, Wen Ch'ing Winnie L -series of Rankin type and their functional equations. (81a:10033)
- Moreno, Carlos Julio The higher reciprocity laws: an example. (81j:12006)
- (Ogus, Arthur) See Deligne, Pierre, (81d:12009)
- Proskurin, N. V. The summation formulas for general Kloosterman sums. (Russian) (81f:10042)
- Rohrlich, David E. The nonvanishing of certain Hecke L -functions at the center of the critical strip. (81k:12017)
- Semmler, Klaus-Dieter See Benko, Kornel; et al., (81d:53028)
- Shintani, Takuro On special values of zeta functions of totally real algebraic number fields. (81e:12016)
- Simon, Udo See Benko, Kornel; et al., (81d:53028)
- Venkov, A. B. On the remainder term in the Weyl-Selberg asymptotic formula. (Russian. English summary) (81k:58070)
- Yoshida, Hiroyuki Siegel's modular forms and the arithmetic of quadratic forms. (81m:10051)

10D25 Complex multiplication [See also 14K22.]

- Gross, Benedict H. ★ Arithmetic on elliptic curves with complex multiplication. (81f:10041)
- Hijikata, Hiroaki (with Pizer, Arnold; Shemanske, Tom) The basis problem for modular forms on $\Gamma_0(N)$. (81k:10045)
- Ihara, Yasutaka Congruence relations and Shimura curves. (81h:10039a)
- Congruence relations and Shimura curves. II. (81h:10039b)
- (Mazur, B.) See Gross, Benedict H., (81f:10041)
- Pizer, Arnold See Hijikata, Hiroaki; et al., (81k:10045)
- Shemanske, Tom See Hijikata, Hiroaki; et al., (81k:10045)

secondary classifications:

- Cohn, Harvey Diophantine equations over $C(t)$ and complex multiplication. (81k:10027)
- Gillard, Roland (with Robert, Gilles) Groupes d'unités elliptiques. (English summary) (81c:12009)
- Kalle, Rolf-Dieter Die Idealklassenzahl verallgemeinerter Eichler-Ordnungen. (81g:12013)
- Matthews, C. R. Gauss sums and elliptic functions. I. The Kummer sum. (81e:10034)
- Gauss sums and elliptic functions. II. The quartic sum. (81e:10035)
- Ohno, Loren D. The trace of Frobenius for elliptic curves with complex multiplication. (81b:10018)
- Robert, Gilles Caractères exceptionnels. (81c:12010)
- See also Gillard, Roland, (81c:12009)
- Shimura, Goro Automorphic forms and the periods of abelian varieties. (81j:10034)
- Shintani, Takuro On special values of zeta functions of totally real algebraic number fields. (81e:12016)

10D30 p -adic theory, local fields [See also 14G20, 22E50.]

- Adolphson, Alan The U_p -operator of Atkin on modular functions of level three. (81a:10040)
- Gerritzen, Lothar Unbeschränkte Steinache Gebiete von P_1 und nichtarchimedische automorphe Formen. (81h:10040)
- Goss, David The algebraist's upper half-plane. (81g:10042)
- Ha Zui Hsai A p -adic L -function associated with an elliptic curve. (Russian) (81k:10046)
- van der Put, M. Discontinuous groups. (81d:10023)
- Tapia-Recillas, Horacio Ultrametric theta functions and abelian varieties. (81m:10054)

secondary classifications:

- Goss, David The Γ -ideal and special zeta-values. (81k:12015)
- Hayes, David R. Explicit class field theory in global function fields. (81d:12011)
- Ihara, Yasutaka Congruence relations and Shimura curves. (81h:10039a)
- Congruence relations and Shimura curves. II. (81h:10039b)
- Jarden, Moshe (with Ritter, Jürgen) Normal automorphisms of absolute Galois groups of p -adic fields. (81j:12010)
- Katz, Nicholas M. p -adic L -functions, Serre-Tate local moduli, and ratios of solutions of differential equations. (81d:12012)
- Oda, Takayuki A note on the Tate conjecture for $K3$ surfaces. (81j:14013)
- Ribet, Kenneth A. Report on p -adic L -functions over totally real fields. (81f:12009)
- Ritter, Jürgen See Jarden, Moshe, (81j:12010)

10D35 Galois properties

- Kolke, Masao A note on modular forms mod p . (81a:10041)
- secondary classifications:
- Vélu, Jacques Le groupe cuspidal des courbes de Fermat. (81k:14024)

10D40 Representation-theoretic methods, trace formulas

- Arthur, James Eisenstein series and the trace formula. (81b:10020)
- Borel, Armand (with Jacquet, Hervé) Automorphic forms and automorphic representations. (81m:10055)
- Automorphic L -functions. (81m:10056)
- Deligne, Pierre Sommes de Gauss cubiques et revêtements de $SL(2)$ [d'après S. I. Patterson]. (81k:10047)
- Flath, Daniel Atkin-Lehner operators. (81h:10041)
- Flicker, Yuval Z. Automorphic forms on covering groups of $GL(2)$. (81m:10057)
- Gelbart, Stephen (with Jacquet, Hervé) A relation between automorphic representations of $GL(2)$ and $GL(3)$. (81e:10025)
- (with Jacquet, Hervé) Forms of $GL(2)$ from the analytic point of view. (81e:10024)
- Henniart, Guy Une forme icosaédrale de poids 1. (81c:10036)
- Hiramatsu, Toyokazu On automorphic forms of weight one. I. (81k:10048)
- Jacquet, Hervé See Gelbart, Stephen, (81e:10024); Gelbart, Stephen, (81e:10025) and Borel, Armand, (81m:10055)
- Karel, Martin L. Functional equations of Whittaker functions on p -adic groups. (81b:10021)
- (Langlands, R. P.) See Borel, Armand; et al., (81m:10055)
- Lax, Peter D. (with Phillips, Ralph S.) Scattering theory for automorphic functions. (81c:10037)
- Li, Wen Ch'ing Winnie Hecke-Weil-Jacquet-Langlands theorem revisited. (81m:10058)
- On the representations of $GL(2)$. I. ε -factors and n -closeness. (81h:10042a)
- On the representations of $GL(2)$. II. ε -factors of the representations of $GL(2) \times GL(2)$. (81h:10042b)
- (Patterson, S. J.) See Deligne, Pierre, (81k:10047)
- Phillips, Ralph S. See Lax, Peter D., (81c:10037)
- Proskurin, N. V. The summation formulas for general Kloosterman sums. (Russian) (81f:10042)
- Convolutions of Dirichlet series with Fourier coefficients of cusp form of weight 0. (Russian) (81m:10059)
- Rallis, Stephen The Eichler commutation relation and the continuous spectrum of the Weil representation. (81a:10042)
- Saito, Hiroshi On lifting of automorphic forms. (81f:10043)
- Tahtadžjan, L. A. See Vinogradov, A. I., (81m:10061)
- Terras, Audrey Applications of special functions for the general linear group to number theory. (81m:10060)
- Traina, Charles R. Trace polynomial for two-generator subgroups of $SL(2, C)$. (81h:10043)
- Vinogradov, A. I. (with Tahtadžjan, L. A.) Theory of the Eisenstein series for the group $SL(3, R)$ and its application to a binary problem. I. Fourier expansion of the highest Eisenstein series. (Russian) (81m:10061)
- Warner, Garth Selberg's trace formula for nonuniform lattices: the R -rank one case. (81f:10044)

secondary classifications:

- Aritürk, Haluk On the composition series of principal series representations of a three-fold covering group of $SL(2, K)$. (81c:22027)
- Arthur, James A trace formula for reductive groups. II. Applications of a truncation operator. (81b:22018)
- Barbasch, Dan Fourier transforms of some invariant distributions on semisimple Lie groups and Lie algebras. (81d:22016)
- Clozel, L. "Base change" géométrique: relèvement de la série principale de $GL(n, C/R)$. (81d:20038)
- Drinfel'd, V. G. Langlands' conjecture for $GL(2)$ over functional fields. (81j:12007)
- Eguchi, Masaaki Asymptotic expansions of Eisenstein integrals and Fourier transform on symmetric spaces. (81e:43022)
- Gelbart, Stephen Examples of dual reductive pairs. (81f:22035)
- Golubeva, E. P. On the structure of the Hecke algebra $L(G, U_0)$ where $G = GL_2(Q_p)$ and U_0 is a principal congruence subgroup. (Russian) (81m:22024)
- Harder, G. (with Li, Wen Ch'ing Winnie; Weisinger, J. R.) Dimensions of spaces of cusp forms over function fields. (81k:10042)
- Henniart, Guy Représentations du groupe de Weil d'un corps local. (81j:12012)
- Howe, Roger E. θ -series and invariant theory. (81f:22034)
- (with Piatetski-Shapiro, I. I.) A counterexample to the "generalized Ramanujan conjecture" for (quasi-) split groups. (81f:22036)
- Kottwitz, R. Orbital integrals and base change. (81f:22030)
- Kutzko, Philipp The Langlands conjecture for GL_2 of a local field. (81c:12027)
- Kuznetsov, N. V. Spectral methods in arithmetical problems. (Russian) (81b:10019)
- Labesce, J.-P. (with Langlands, R. P.) L -indistinguishability for $SL(2)$. (81b:12017)
- Langlands, R. P. L -functions and automorphic representations. (81e:12013)
- See also Labesce, J.-P., (81b:12017)
- Lax, Peter D. (with Phillips, Ralph S.) Translation representations for the solution of the non-Euclidean wave equation. (81a:43013)
- Li, Wen Ch'ing Winnie See Harder, G.; et al., (81k:10042)
- Maloletkin, G. N. The construction of Siegel cusp forms of genus 2 from cusp forms of genus 1. (Russian) (81k:10044)
- Miatello, Roberto J. The Minakshisundaram-Pleijel coefficients for the vector-valued heat kernel on compact locally symmetric spaces of negative curvature. (81f:58033)
- Phillips, Ralph S. See Lax, Peter D., (81a:43013)
- Piatetski-Shapiro, I. I. Classical and adelic automorphic forms. An introduction. (81c:10033)
- Multiplicity one theorems. (81m:22027)
- See also Howe, Roger E., (81f:22036)
- Rallis, Stephen On a relation between SL_2 cusp forms and automorphic forms on orthogonal groups. (81c:10029)
- (with Schiffmann, Gérard) Weil representation. I. Intertwining distributions and discrete spectrum. (81j:22007)

Saito, Hiroshi (with Yamauchi, Masatoshi) Trace formula of certain Hecke operators for $\Gamma_0(q)$. (81a:10036)

Schiffmann, Gérard See Rallis, Stephen. (81j:22007)

Shahidi, Freydoon On nonvanishing of L -functions. (81c:12020)

Whittaker models for real groups. (81d:22020)

Shelstad, Diana Orbital integrals for $GL_2(\mathbb{R})$. (81f:22017)

Notes on L -indistinguishability (based on a lecture of R. P. Langlands).

(81m:12018)

Sitaram, Aladi A note on $L^2(\Gamma \backslash SL(2, \mathbb{R}))$. (81d:22018)

Strömberg, Helen L -functions for $GL(n)$. (81c:12021)

Semiot, Janusz The duality theorems. Cyclic representations. Langlands conjectures. (81j:22012)

Wallach, Nolan R. The spectrum of compact quotients of semisimple Lie groups. (81f:22021)

Wetsinger, J. R. See Harder, G.; et al., (81k:10042)

Yamauchi, Masatoshi See Saito, Hiroshi, (81a:10036)

10D45 Uniformization, periods and cohomology

Ligozat, Gérard Courbes elliptiques ayant bonne réduction en dehors de 3. 81a:14017

10D99 None of the above, but in this section

Miao, Lung Chi See Tseng, Chün Hung. 81e:10026

Tseng, Chün Hung (with Miao, Lung Chi) On generalized Dedekind functions. 81e:10026

secondary classifications:

Buser, Peter Dichtpunkte im Spektrum Riemannscher Flächen. (81i:50044)

Narasimhan, M. S. (with Ramanan, S.) Geometry of Hecke cycles. I. (81b:14003)

Néron, André Hauteurs et fonctions θ -éta. (English summary) (81k:14022)

Ramanan, S. See Narasimhan, M. S., (81b:14003)

10Exx Geometry of numbers

Gubler, Peter M. Geometry of numbers. 81h:10044

10E05 Lattices and convex bodies [See also 10J25.]

Betke, Ulrich (with Wills, Jörg M.) Stetige und diskrete Funktionale konvexer Körper. 81m:10062

Ramharter, G. Über das Mordellsche Umkehrproblem für den Minkowskischen Linearformensatz. 81k:10050

Scott, P. R. Further inequalities for convex sets with lattice point constraints in the plane. 81h:10045

Venkov, B. B. Odd unimodular lattices. (Russian) 81a:10043

Wills, Jörg M. See Betke, Ulrich, 81m:10062

Worley, R. T. Positive points in polar lattices. II. 81j:10035

secondary classifications:

Arnold, V. I. Statistics of integral convex polygons. (Russian) (81g:52011)

Brunotte, Horst Vektoren minimaler Länge in Gittern mit einem Automorphismus. (English summary) (81a:12008)

Mal'nev, A. V. The critical determinant of the region $|x|^p + |y|^p < 1$. (Supplement to the article "The application of an electronic computer to the proof of a certain conjecture of Minkowski from the geometry of numbers" [Zap. Nauch. Sem. Leningrad. Otdel. Mat. Inst. Steklov (LOMI) 71 (1977), 163-180; MR 58 #27801].) (Russian) (81k:10049)

Rosen, Kenneth H. Lattice points in four-dimensional tetrahedra and a conjecture of Rademacher. (81m:10092)

10E10 Nonconvex bodies

Ullrich, B. Some useful estimations in the geometry of numbers. 81h:10046

10E15 Products of linear forms

Bambah, R. P. (with Woods, A. C.) Minkowski's conjecture for $n=5$; a theorem of Skubenko. 81g:10043

Narzulalov, H. N. On the neighborhood of the DOTU-matrices. (Russian. English summary) 81f:10045

Woods, A. C. See Bambah, R. P., 81g:10043

secondary classifications:

Vaaler, Jeffrey D. A geometric inequality with applications to linear forms. (81d:52007)

10E20 Minima of forms [See also 10C25.]

Hans-Gill, R. J. (with Raka, Madhu) Some inequalities for nonhomogeneous quadratic forms. 81h:10047a

(with Raka, Madhu) Inhomogeneous minimum of indefinite quadratic forms in five variables of type (4,1) or (1,4); a conjecture of Watson. 81h:10047b

(with Raka, Madhu) Positive values of inhomogeneous 5-ary quadratic forms of type (3,2). 81k:10051

Raka, Madhu See Hans-Gill, R. J., 81h:10047a; Hans-Gill, R. J., 81h:10047b and Hans-Gill, R. J., 81k:10051

Schmied, A. (with Schlickewei, H. P.; Schmidt, Wolfgang M.) Small solutions of quadratic congruences and small fractional parts of quadratic forms. 81m:10063

Schlickewei, H. P. See Schinzel, A.; et al., 81m:10063

Schmidt, Wolfgang M. See Schinzel, A.; et al., 81m:10063

Troesch, B. A. The shooting method applied to a cyclic inequality. 81b:10022

secondary classifications:

Narzulalov, H. N. On the neighborhood of the DOTU-matrices. (Russian. English summary) (81f:10045)

10E25 Quadratic forms (reduction, extreme forms, etc.) [See also 10C05.]

Fields, K. L. Stable, fragile and absolutely symmetric quadratic forms. 81a:10044

Locally minimal Epstein zeta functions. 81j:10036

Ryškov, S. S. Multidimensional sails. (Russian) 81j:10037

Venkov, B. B. Classifications of integral even unimodular 24-dimensional quadratic forms. (Russian) 81d:10024

secondary classifications:

Baranovskii, E. P. See Ryškov, S. S., (81a:10045)

Bartels, Hans-Jochen Zur Galoiskohomologie definierter arithmetischer Gruppen. (81a:22007)

Pačev, U. M. On the distribution of integer points on some two-sheeted hyperboloids. (Russian) (81m:10091)

Ryškov, S. S. (with Baranovskii, E. P.) Classical methods of the theory of lattice packings. (Russian) (81a:10045)

Tasputolov, B. Formulas of Weil-Eichler type for certain quaternary quadratic forms. (Russian) (81k:10034)

10E30 Lattice packing and covering [See also 05B40, 52A45.]

Baranovskii, E. P. See Ryškov, S. S., 81a:10045

van Lint, J. H. Sphere-packings, codes, lattices and theta-functions. (See 81b:05001)

Ryškov, S. S. (with Baranovskii, E. P.) Classical methods of the theory of lattice packings. (Russian) 81a:10045

secondary classifications:

Fields, K. L. Stable, fragile and absolutely symmetric quadratic forms. (81a:10044)

Gordon, Basil Tilings of lattice points in Euclidean n -space. (81d:52008)

Sloane, N. J. A. Codes over $GF(4)$ and complex lattices. (French summary) (81g:94040)

Tichy, Robert F. Zum Approximationssatz von Dirichlet. (English summary) (81e:10027)

10E35 Mean value theorems

10E40 Transfer theorems

secondary classifications:

Grünbaum, Branko (with Shephard, G. C.) Tilings with congruent tiles. (81k:51014)

Shephard, G. C. See Grünbaum, Branko, (81k:51014)

10E45 Automorphism groups of lattices [See also 10C30.]

Černjakov, A. G. An example of a 32-dimensional even unimodular lattice. (Russian) 81a:10046

secondary classifications:

Klee, Victor On the complexity of d -dimensional Voronoi diagrams. (81k:52014)

Meeniche, Jens L. Eine Pflasterung des dreidimensionalen hyperbolischen Raumes. (81e:52008)

Nikulin, V. V. Finite groups of automorphisms of Kählerian $K3$ surfaces. (Russian) (81e:32033)

O'Meara, O. T. On indecomposable quadratic forms. (81i:10027)

10E99 None of the above, but in this section

Gerver, Joseph L. Long walks in the plane with few collinear points. 81c:10038

(with Ramsey, L. Thomas) On certain sequences of lattice points. 81c:10039

Ramsey, L. Thomas See Gerver, Joseph L., 81c:10039

secondary classifications:

Bushnell, Colin J. Norm distribution in Galois orbits. (81h:12007)

Krafft, Olaf (with Mathar, Rudolf; Schaefer, Martin) A refined geometric-arithmetic means inequality for integers. (81b:26016)

Mathar, Rudolf See Krafft, Olaf; et al., (81b:26016)

Schaefer, Martin See Krafft, Olaf; et al., (81b:26016)

10Fxx Diophantine approximation [See also 10K15.]

Schmidt, Wolfgang M. ★ Diophantine approximation. 81j:10038

Sprindžuk, V. G. Achievements and problems of the theory of Diophantine approximations. (Russian) 81j:10039

secondary classifications:

Lang, Serge ★ Elliptic curves: Diophantine analysis. (81b:10009)

10F05 Approximation to one number

- Davis, C. S. A note on rational approximation. **81c:10040**
- Feml, Stanimir A proof that $\sqrt[3]{2}$ cannot be constructed in an elementary manner. (Serbo-Croatian) **81m:10064**
- Ivanov, V. A. On the ray origin in the Dirichlet spectrum of a problem of the theory of Diophantine approximations. (Russian) **81j:10040**

secondary classifications:

- Baker, R. C. Recent results on fractional parts of polynomials. **(81m:10069)**
- Brauer, Erhard On the approximation of π by special algebraic numbers. **(81e:10029)**
- Liu, Ming Chit (with Ng, Shu Ming; Taang, Kai Man) An improved estimate for certain Diophantine inequalities. **(81f:10025)**
- Ng, Shu Ming See Liu, Ming Chit; et al., **(81f:10025)**
- Tsang, Kai Man See Liu, Ming Chit; et al., **(81f:10025)**

10F10 Simultaneous approximation

- Cusick, T. W. Best Diophantine approximation for ternary linear forms. **81h:10048**
- Dubois, Eugène (with Rhin, Georges) Approximations simultanées de deux nombres réels. (English summary) **81j:10041**
- Kopetsky, Hans Günther Rationale Approximationen am Einheitskreis. (English summary) **81j:10042**
- Pethő, Attila Diophantische Approximationen mit natürlichen Zahlen. **81m:10065**
- Rhin, Georges See Dubois, Eugène, **81j:10041**
- Titchy, Robert F. Zum Approximationssatz von Dirichlet. (English summary) **81e:10027**
- Xu, Guang Shan (with Yu, Kun Rui) Some Diophantine inequalities involving a class of Siegel's E -functions. (Chinese) **81h:10049**
- Yu, Kun Rui See Xu, Guang Shan, **81h:10049**

secondary classifications:

- Baker, R. C. Fractional parts of several polynomials. III. **(81f:10045)**
- Schmidt, Wolfgang M. Contributions to Diophantine approximation in fields of series. **(81b:10023)**

10F15 Nonhomogeneous approximation

secondary classifications:

- Igarí, Satoru Remarks on the Kronecker's approximation theorem and a unitary measure. **(81g:43001)**

10F20 Continued fractions and generalizations [See also 10A32, 10K10.]

- Homdonougho, Victor Développement en fraction continue sur $K(X)$. Fonction profonde. (English summary) **81e:10028**
- Kogonija, P. G. Some indeterminate equations in the theory of continued fractions. (Russian. Georgian and English summaries) **81j:10043**
- Lawrence, W. R. Subsequent to a theorem of Markoff. **81i:10035**

secondary classifications:

- Carrer, Antonio Geometric deduction of an expansion of an arbitrary number in an infinite periodic continued fraction. (Italian) **(81m:10013)**
- Davis, C. S. A note on rational approximation. **(81c:10040)**
- Pippenger, Nicholas The minimum number of edges in graphs with prescribed paths. **(81e:05079)**

10F25 Approximation to algebraic numbers

- Mignotte, Maurice Approximation des nombres algébriques par des nombres algébriques de grand degré. (English summary) **81h:10050**
- Pethő, Attila Über die nichtlineare Diophantische Approximation von quadratischen, algebraischen Zahlen. (English summary) **81k:10052**

secondary classifications:

- Cusick, T. W. Best Diophantine approximation for ternary linear forms. **(81h:10048)**
- Pethő, Attila Diophantische Approximationen mit natürlichen Zahlen. **(81m:10065)**

10F30 Approximation by numbers from a fixed field

- Wüstholz, Gert Linearformen in Logarithmen von U -Zahlen und Transzendenz von Potenzen. II. **81a:10047**

secondary classifications:

- Feldman, N. I. Effective bounds of the solutions of certain Diophantine equations. **(81c:10024)**
- Mignotte, Maurice Approximation des nombres par certaines suites de rationnels. **(81c:10041)**
- Vitěšský, V. T. Rational approximations to almost all real numbers. (Russian. English summary) **(81f:10065)**

10F35 Irrationality and transcendence

- Alladi, K. (with Robinson, M. L.) On certain irrational values of the logarithm. **81j:10044**
- (with Robinson, M. L.) Legendre polynomials and irrationality. **81i:10036**
- Bank, Steven B. (with Kaufman, Robert P.) On differential equations and functional

equations. **81a:10048**

- Beukers, F. A note on the irrationality of $\zeta(2)$ and $\zeta(3)$. **81j:10045**
- Brauer, Erhard On the approximation of π by special algebraic numbers. **81e:10029**
- Brownawell, W. Dale (with Masser, David W.) Multiplicity estimates for analytic functions. I. **81j:10046a**
- (with Masser, David W.) Multiplicity estimates for analytic functions. II. **81j:10046b**
- Bundschuh, Peter Zwei Bemerkungen über transzendente Zahlen. (English summary) **81f:10046**
- Arithmetische Eigenschaften ganzer Funktionen mehrerer Variablen. **81i:10037**
- (Cantor, Georg) See Schubart, Hans, **81g:10048**
- Chudnovsky, Gregory V. Transcendental numbers. **81g:10044**
- Padé approximations to the generalized hypergeometric functions. I. **81j:10047**
- Rational and Padé approximations to solutions of linear differential equation and the monodromy theory. **81m:10066**
- Indépendance algébrique dans la méthode de Gel'fond-Schneider. (English summary) **81i:10038**
- Čirskii, V. G. Arithmetic properties of the values of analytic functions with algebraic coefficients of Taylor series. (Russian. English summary) **81a:10049a**
- Arithmetic properties of the values of analytic functions with algebraic irrational coefficients of Taylor series. (Russian. English summary) **81a:10049b**
- Arithmetic properties of the values of elliptic integrals. (Russian. English summary) **81g:10045**
- Coleman, Robert F. On a stronger version of the Schanuel-Ax theorem. **81j:10048**
- Durand, Alain Simultaneous Diophantine approximations and Hermite's method. **81j:10049**
- Escassut, Alain Problèmes de transcendance p -adique. **81i:10039**
- Galočkin, A. I. A transcendence measure for the values of functions satisfying certain functional equations. (Russian) **81j:10050**
- Geijsel, J. M. \star Transcendence in fields of positive characteristic. **81e:10030**
- Kaufman, Robert P. See Bank, Steven B., **81a:10048**
- Laurent, Michel Approximation diophantienne de valeurs de la fonction beta aux points rationnels. (English summary) **81i:10040**
- Loxton, John H. (with Van der Poorten, Alfred J.) Arithmetic properties of certain functions in several variables. III. **81g:10046**
- Masser, David W. Some recent results in transcendence theory. **81h:10051**
- See also Brownawell, W. Dale, **81j:10046a** and Brownawell, W. Dale, **81j:10046b**
- Mignotte, Maurice Approximation des nombres par certaines suites de rationnels. **81c:10041**
- Nazarov, I. N. A rationality criterion for certain power series. (Russian) **81g:10047**
- Reyssat, Éric Irrationalité de $\zeta(3)$ selon Apéry. **81i:10041**
- Approximation de nombres liés à la fonction sigma de Weierstrass. (English summary) **81k:10053**
- Robinson, M. L. See Alladi, K., **81i:10036** and Alladi, K., **81j:10044**
- (Schmidt, Wolfgang M.) See Zhu, Yao Chen; et al., **81m:10067**
- Schubart, Hans Irrationalitätskriterien nach Georg Cantor. **81g:10048**
- Šidlovskii, A. B. Arithmetic properties of E -function values at algebraic points. (Russian) **81g:10049**
- Arithmetic properties of the values of analytic functions of certain class. (Russian) **81d:10025**
- On the arithmetic properties of values of E -functions connected with algebraic equations in the rational function field. (Russian) **81g:10050**
- Van der Poorten, Alfred J. See Loxton, John H., **81g:10046**
- Waldschmidt, Michel Applications de la théorie de Kummer à des problèmes de transcendance. **81k:10054**
- Wang, Lian Xiang See Zhu, Yao Chen; et al., **81m:10067**
- Xu, Guang Shan See Yu, Kun Rui, **81a:10050** and Zhu, Yao Chen; et al., **81m:10067**
- Yu, Kun Rui (with Xu, Guang Shan) A note on a theorem of Baker and Mahler. (Chinese. English summary) **81a:10050**
- Zhu, Yao Chen (with Wang, Lian Xiang; Xu, Guang Shan) On the transcendence of a class of series. **81m:10067**

secondary classifications:

- Bertrand, Daniel Transcendance et lois de groupes algébriques. **(81h:10054)**
- Propriétés arithmétiques des dérivées de la fonction modulaire $j(\tau)$. **(81i:10042)**
- Bundschuh, Peter (with Wylegala, Franz-Josef) Über algebraische Unabhängigkeit bei gewissen nichtfortsetzbaren Potenzreihen. **(81m:10068)**
- Cowles, John Some congruence properties of three well-known sequences: two notes. **(81g:10015)**
- Giaccardi, Livia (with Roero, Clara Silvia; Viola, Tullio) Contribution à l'interprétation d'un passage du dialogue *Théétète* de Platon, concernant Théodore de Cyrène. **(81f:01002)**
- Roero, Clara Silvia See Giaccardi, Livia; et al., **(81f:01002)**
- Viola, Tullio See Giaccardi, Livia; et al., **(81f:01002)**
- Wylegala, Franz-Josef See Bundschuh, Peter, **(81m:10068)**

10F37 Independence results

- Bertrand, Daniel (with Masser, David W.) Formes linéaires d'intégrales abéliennes. (English summary) **81d:10026**
- (with Masser, David W.) Linear forms in elliptic integrals. **81e:10032**
- Propriétés arithmétiques des dérivées de la fonction modulaire $j(\tau)$. **81i:10042**
- Brownawell, W. Dale On the development of Gel'fond's method. **81h:10052**
- Bundschuh, Peter (with Wylegala, Franz-Josef) Über algebraische Unabhängigkeit bei gewissen nichtfortsetzbaren Potenzreihen. **81m:10068**
- Chowla, S. (with Hartung, Paul G.; Sterling, G.) On the linear independence of certain numbers over the field of rationals. **81d:10027**
- Chudnovsky, Gregory V. Algebraic independence of values of exponential and elliptic functions. **81j:10051**

Feldman, N. I. The algebraic independence of certain numbers. (Russian. English summary) **81j:10052**

Hartung, Paul G. See Chowla, S.; et al., **81d:10027**

Laurent, Michel. Indépendance linéaire de valeurs de fonctions doublement quasi-périodiques. (English summary) **81e:10031**

Masser, David W. See Bertrand, Daniel, **81d:10026** and Bertrand, Daniel, **81e:10032**

Reynaud, Eric. Fonctions de Weierstrass et indépendance algébrique. (English summary) **81i:10043**

Salihov, V. H. Algebraic irreducibility of a set of linear differential equations. (Russian) **81k:10055**

Differential irreducibility of a class of differential equations. (Russian) **81h:10053**

Sterling, G. See Chowla, S.; et al., **81d:10027**

Wüstholz, Giselbert. Algebraische Unabhängigkeit von Werten von Funktionen, die gewissen Differentialgleichungen genügen. **81i:10044**

Wylegala, Franz-Josef. See Bundschuh, Peter, **81m:10068**

secondary classifications:

Chudnovsky, Gregory V. Padé approximations to the generalized hypergeometric functions. I. (**81j:10047**)

Györy, Kálmán. On the greatest prime factors of decomposable forms at integer points. (**81g:10038**)

10F40 Distribution modulo one [See also 10K05.]

Baker, R. C. Recent results on fractional parts of polynomials. **81m:10069**
Fractional parts of several polynomials. III. **81i:10045**

Coquet, Jean. Sur certaines suites uniformément équiréparties modulo 1. **81j:10053a**
Sur certaines suites uniformément équiréparties modulo un. II. (English summary) **81j:10053b**

Iľjanov, I. I. The structure of a sequence. (Russian) **81i:10046**

Kulpers, L. (with Shiu, Jau Shyong) On a criterion for uniform distribution of a sequence in the ring of Gaussian integers. **81m:10070**

Rhin, Georges. Sur la répartition modulo 1 de quelques suites arithmétiques. **81g:10051**

Schoffeleers, Johannes. Der Zusammenhang zwischen den Nullstellen der ζ -Funktion und Folgen der Form $[g(p)] \bmod 1$, p -Prim. **81g:10052**

Shiu, Jau Shyong. See Kulpers, L., **81m:10070**

secondary classifications:

Boyd, David W. Some integer sequences related to Pisot sequences. (**81a:10068**)

Erdős, Paul. (with Wagstaff, Samuel S., Jr.) The fractional parts of the Bernoulli numbers. (**81c:10064**)

Fomenko, O. M. See Golubeva, E. P., (**81f:10061**)

Golubeva, E. P. (with Fomenko, O. M.) On the distribution of the sequence $bp^{3/2}$ modulo 1. (Russian. English summary) (**81f:10061**)

Kopetzky, Hans Günther. Über natürliche Zahlen n mit der Eigenschaft $[(an, bn)] = 1$. (**81h:10003**)

Rationale Approximationen am Einheitskreis. (English summary) (**81j:10042**)

Wagstaff, Samuel S., Jr. See Erdős, Paul, (**81c:10064**)

10F45 Approximation in non-Archimedean valuations

Bertrand, Daniel. Transcendance et lois de groupes algébriques. **81h:10054**
(with Flicker, Yuval Z.) Linear forms on abelian varieties over local fields. **81k:10056**

Bundschuh, Peter. (with Wallisser, Rolf) Untere Schranken für Polynome in Werten der p -adischen Exponentialfunktion. **81i:10047**

Flicker, Yuval Z. See Bertrand, Daniel, **81k:10056**

Mei'nik, Ju. V. p -adic analogue of W. Schmidt's metric theorem. (Russian) **81g:10053**

Schmidt, Wolfgang M. Contributions to Diophantine approximation in fields of series. **81h:10023**

Wallisser, Rolf. See Bundschuh, Peter, **81i:10047**

secondary classifications:

Györy, Kálmán. (with Papp, Zoltán) On discriminant form and index form equations. (**81g:10034**)

On the number of solutions of linear equations in units of an algebraic number field. (**81g:10031**)

van Hamme, L. Jackson's interpolation formula in p -adic analysis. (**81i:12021**)

Papp, Zoltán. See Györy, Kálmán, (**81g:10034**)

Sprindžuk, V. G. Hilbert's irreducibility theorem and rational points on algebraic curves. (Russian) (**81h:12025**)

10F99 None of the above, but in this section

Diamond, Harold G. (with Pomerance, Carl) Nearly parallel vectors. **81h:10055**

Judin, V. A. Diophantine approximations in extremal problems in L_2 . (Russian) **81h:10056**

Liu, Ming Chit. Recent development of some analogues of Waring's problem and Dirichlet's theorem involving primes. **81f:10047**

Masser, David W. Sur les fonctions entières à valeurs entières. (English summary) **81i:10048**

Pomerance, Carl. See Diamond, Harold G., **81h:10055**

Wagner, Gerald. On a problem of Erdős in Diophantine approximation. **81f:10048**

secondary classifications:

Davis, Philip J. See Rowland, John H., (**81m:68022**)

Rowland, John H. (with Davis, Philip J.) On the use of transcendentals for program testing. (**81m:68022**)

Serre, Jean-Pierre. Un exemple de série de Poincaré non rationnelle. (**81a:55014**)

Xu, Guang Shan. (with Yu, Kun Rui) Some Diophantine inequalities involving a class of Siegel's E -functions. (Chinese) (**81h:10049**)

Yu, Kun Rui. See Xu, Guang Shan, (**81h:10049**)

10Gxx Trigonometric sums, exponential sums and character sums

secondary classifications:

Boyarisky, Maurizio. p -adic gamma functions and Dwork cohomology. (**81c:12029**)

10G05 Exponential sums

Arhipov, G. I. (with Karacuba, A. A.; Čubarikov, V. N.) A sharp estimate of the number of solutions of a system of Diophantine equations. (Russian) **81f:10049**

Berndt, Bruce C. (with Evans, Ronald J.) Sums of Gauss, Jacobi, and Jacobsthal. **81j:10054**
(with Evans, Ronald J.) Sums of Gauss, Eisenstein, Jacobi, Jacobsthal, and Brewer. **81j:10055**

Čubarikov, V. N. See Arhipov, G. I.; et al., **81f:10049**

Evans, Ronald J. Resolution of sign ambiguities in Jacobi and Jacobsthal sums. **81a:10051**

See also Berndt, Bruce C., **81j:10054** and Berndt, Bruce C., **81j:10055**

Heath-Brown, D. R. (with Patterson, S. J.) The distribution of Kummer sums at prime arguments. **81e:10033**

Karacuba, A. A. See Arhipov, G. I.; et al., **81f:10049**

Lehmer, D. H. (with Lehmer, Emma) Picturesque exponential sums. II. **81j:10056**

Lehmer, Emma. See Lehmer, D. H., **81j:10056**

Loxton, John H. On the determination of Gauss sums. **81d:10028**

Matthews, C. R. Gauss sums and elliptic functions. I. The Kummer sum. **81e:10034**
Gauss sums and elliptic functions. II. The quartic sum. **81e:10035**

Moursouris, Nick. See Porter, A. Duane, **81g:10054**

Patterson, S. J. See Heath-Brown, D. R., **81e:10033**

Porter, A. Duane. (with Moursouris, Nick) Exponential sums and rectangular partitions. **81g:10054**

Stepanov, S. A. On the proof of the Davenport-Hasse relations. (Russian) **81g:10055**

Tuttas, Friedemann. Über die Entwicklung multiplikativer Funktionen nach Ramanujan-Summen. **81h:10057**

secondary classifications:

Evans, Ronald J. Biocyclic Gauss sums and sixteenth power residue difference sets. (**81h:10004**)

v. Goltschek, Manfred. Approximation by imaginary exponential sums. (**81b:41051**)

Rhin, Georges. Sur la répartition modulo 1 de quelques suites arithmétiques. (**81g:10051**)

Schoffeleers, Johannes. Der Zusammenhang zwischen den Nullstellen der ζ -Funktion und Folgen der Form $[g(p)] \bmod 1$, p -Prim. (**81g:10052**)

Sperber, Steven I. On the L -functions associated with certain exponential sums. (**81m:12022**)

Taylor, Martin J. Local Gauss sums. (**81g:12021**)

10G10 Estimates on exponential sums

Arhipov, G. I. (with Karacuba, A. A.; Čubarikov, V. N.) Exponent of convergence of the singular integral in the Terry problem. (Russian) **81h:10058**

(with Karacuba, A. A.; Čubarikov, V. N.) Trigonometric integrals. (Russian) **81f:10050**

(with Karacuba, A. A.; Čubarikov, V. N.) Multiple trigonometric sums and their applications. (Russian) **81m:10071**

Chaba, A. N. Evaluation of certain lattice sums in arbitrary dimensions. **81m:10072**

Chandrasekharan, K. (with Narasimhan, Raghavan) Exponential sums associated with algebraic number fields. **81j:10057**

Čubarikov, V. N. See Arhipov, G. I.; et al., **81f:10050**; Arhipov, G. I.; et al., **81h:10058** and Arhipov, G. I.; et al., **81m:10071**

Ellison, William. Vinogradov's mean value theorem. **81k:10057**

Karacuba, A. A. See Arhipov, G. I.; et al., **81f:10050**; Arhipov, G. I.; et al., **81h:10058** and Arhipov, G. I.; et al., **81m:10071**

Lavrík, A. F. Analytic method of estimates of trigonometric sums by the primes of an arithmetic progression. (Russian) **81d:10029**

Narasimhan, Raghavan. See Chandrasekharan, K., **81j:10057**

Pichorides, Stylianos K. Supplement to: *Norms of exponential sums* [Dépt. Math., Univ. Paris-Sud, Orsay, 1977; MR 57 # 16222]. **81d:10030**

Quelques remarques sur les sommes exponentielles. **81k:10058**

On the L^2 norm of exponential sums. (French summary) **81j:10058**

Proskurin, N. V. On the Ju. V. Linnik conjecture. (Russian. English summary) **81m:10073**

Smith, Robert A. Estimates for exponential sums. **81k:10059**

secondary classifications:

Evans, Ronald J. The 2th power character of 2. (**81f:10006**)

Kolesnik, G. On the order of Dirichlet L -functions. (**81c:10045**)

Lavrík, A. F. On the theory of distribution of primes based on I. M. Vinogradov's method of trigonometric sums. (See **80m:00006**)

Pichorides, Stylianos K. On the L^2 norm of exponential sums. (**81h:42003**)

Usol'cev, L. P. Distribution of signs in part of the period of an infinite purely periodic fraction. (Russian) (**81h:10013**)

10G15 Character sums

Berndt, Bruce C. (with Evans, Ronald J.) Half Gauss sums. **81h:10049**

Evans, Ronald J. Unambiguous evaluations of bidecic Jacobi and Jacobsthal sums. **81c:10042**

Note on intersections of translates of powers in finite fields. **81m:10074**

See also Berndt, Bruce C., **81i:10049**

secondary classifications:

Berndt, Bruce C. (with Evans, Ronald J.) Sums of Gauss, Eisenstein, Jacobi, Jacobsthal, and Brewer. **(81j:10055)**

(with Evans, Ronald J.) Sums of Gauss, Jacobi, and Jacobsthal. **(81j:10054)**

Bölling, Reinhard. Bemerkungen über Klassenzahlen und Summen von Jacobi-Symbolen. **(81g:12008)**

Evans, Ronald J. See Berndt, Bruce C., **(81j:10054)** and Berndt, Bruce C., **(81j:10055)**

Schmidt, Claus-G. Gauss sums and the classical Γ -function. **(81k:12008)**

Über die Führer von Gaußschen Summen als Größencharaktere. (English summary) **(81k:12009)**

10G20 Estimates on character sums

Heath-Brown, D. R. A large values estimate for Dirichlet polynomials. **81a:10052**

Montgomery, H. L. (with Vaughan, R. C.) Mean values of character sums. **81c:10043**

Sperber, Steven I. Congruence properties of the hyper-Kloosterman sum. **81j:10059**

Vaughan, R. C. See Montgomery, H. L., **81c:10043**

10G99 None of the above, but in this section

Lenstra, Hendrik W., Jr. Vanishing sums of roots of unity. **81c:10044**

secondary classifications:

Kerber, Adalbert (with Wagner, Bernd) Gleichungen in endlichen Gruppen. **(81k:20015)**

Králik, Dezső. Elementary methods of the theory of series in approximation theory. (Hungarian) **(81m:40007)**

Wagner, Bernd. See Kerber, Adalbert, **(81k:20015)**

10Hxx Multiplicative theory

Knopfmacher, John. ★ Analytic arithmetic of algebraic function fields. **81d:10031**

Prachar, Karl. ★ Primzahlverteilung. (German) [The distribution of primes] **81k:10060**

10H05 Riemann's zeta function, functional equation

Heath-Brown, D. R. Simple zeros of the Riemann zeta function on the critical line. **81f:10051**

The fourth power moment of the Riemann zeta function. **81f:10052**

Israliov, M. I. Coefficients of the Laurent expansion of Riemann zeta functions. (Russian) **81m:10075**

Ivić, Aleksandar. A note on the zero-density estimates for the zeta function. **81f:10053**

Iwaniec, Henryk. On mean values for Dirichlet's polynomials and the Riemann zeta-function. **81m:10076**

van de Lune, J. A note on a formula of van der Pol. **81i:10050**

Matsuoka, Yasushi. On the values of the Riemann zeta function at half integers. **81m:10077**

Mözer, Jan. Supplement: "A certain Hardy-Littlewood theorem in the theory of the Riemann zeta function" [Acta Arith. 31 (1976), no. 1, 45-51; MR 55 #280]. (Russian) **81a:10053**

Peretti, Aldo. Some new formulae in the theory of the ζ -function. I. **81b:10024a**

Errata: "Some new formulae in the theory of the ζ -function". **81b:10024b**

Some new formulae in the theory of the ζ -function. II. **81b:10024c**

Raizin, Carlos. Entire functions with zeros at the prime numbers. **81a:10054**

Toyozumi, Masao. Formulae for the Riemann zeta function at half integers. **81j:10060**

Veronin, S. M. Zeros of some Dirichlet series lying on the critical line. (Russian) **81c:10036**

secondary classifications:

Turán, Pál. On a problem of E. Landau. **(81k:10071)**

10H08 Dirichlet L -function, functional equation

Bentz, Hans-J. Über eine Vermutung von Tschebyscheff. I. **81c:10037a**

Über eine Vermutung von Tschebyscheff. II. **81c:10037b**

Fujii, Akio. On the zeros of Dirichlet L -functions. III. **81g:10056a**

On the zeros of Dirichlet L -functions. IV. **81g:10056b**

On the zeros of Dirichlet L -functions. V. **81g:10057a**

On the zeros of Dirichlet L -functions. VI. **81g:10057b**

On the zeros of Dirichlet L -functions. VII. **81g:10057c**

Heath-Brown, D. R. Hybrid bounds for Dirichlet L -functions. II. **81h:10059**

Hu, Ch'ing Hsian. On a ring of Dirichlet series. **81h:10060**

Kolesnik, G. On the order of Dirichlet L -functions. **81c:10045**

Laurinćikas, Antanas. Large deviations of Dirichlet L -functions. (Russian. Lithuanian and English summaries) **81h:10061**

Ramachandra, K. One more proof of Siegel's theorem. **81k:10061**

Rame, V. V. On the mean square value of Dirichlet L -series. **81h:10062**

Stark, Harold M. (with Zagier, D.) A property of L -functions on the real line. **81i:10051**

Zagier, D. See Stark, Harold M., **81i:10051**

secondary classifications:

(Baker, Alan) See Heath-Brown, D. R., **(81m:10042)**

Heath-Brown, D. R. On a paper: "On the least integers represented by the genera of

binary quadratic forms" [Acta Arith. 18 (1971), 137-144; MR 47 #8437] by A. Baker and A. Schinzel. **(81m:10042)**

Lagarias, J. C. (with Montgomery, H. L.; Odlyzko, A. M.) A bound for the least prime ideal in the Chebotarev density theorem. **(81b:12013)**

Montgomery, H. L. See Lagarias, J. C.; et al., **(81b:12013)**

Odlyzko, A. M. See Lagarias, J. C.; et al., **(81b:12013)**

(Schinzel, A.) See Heath-Brown, D. R., **(81m:10042)**

10H10 Other zeta functions {For local and global ground fields, see 12A70, 12A80, 12B30, 12B35; for algebro-geometric methods, see 14G10; see also 10C15, 10D40.}

Balasubramanian, R. (with Ramachandra, K.) On the zeros of a class of generalized Dirichlet series. IV. **81c:10046**

Barrucand, Pierre. Fonctions associées aux produits eulériens. **81c:10048**

Frysa, Tadeusz. Über die obere Grenze der reellen Teile der Nullstellen der

Dedekindschen Zetafunktionen. **81b:10025**

Gaigalas, E. The distribution of primes in two quadratic imaginary number fields. I

(Russian. Lithuanian and English summaries) **81b:10026**

Kubert, Daniel S. (with Lang, Serge) Cartan-Bernoulli numbers as values of L -series

81b:10027

Lang, Serge. See Kubert, Daniel S., **81b:10027**

Li, Kung Ch'ing. A note on identities for series of the type $\sum f(n)\mu(n)n^{-s}$. **81k:10062**

Makys, M. Metric and analytic number theory at Vilnius University. (Russian.

Lithuanian and English summaries) **81k:10063**

Ramachandra, K. On the zeros of generalised Dirichlet series. V. **81c:10047**

See also Balasubramanian, R., **81c:10046**

Redmond, Don. A density theorem for a class of Dirichlet series. **81i:10052**

Ryavec, C. Inequalities for the zeros of Dirichlet L -functions. **81h:10063**

Smith, Robert A. The average order of a class of arithmetic functions over arithmetic

progressions with applications to quadratic forms. **81j:10061**

Stark, Harold M. L -functions at $s=1$. IV. First derivatives at $s=0$. **81f:10054**

Stas, W. On the order of Dedekind zeta-functions near the line $\sigma=1$. **81b:10028**

Subbarao, M. V. On the nonexistence of certain Euler products. **81k:10064**

Wieczorkiewicz, Jan K. Some explicit estimates for the Dedekind zeta functions.

81d:10032

secondary classifications:

An, Chung Ming (with Stein, Alan H.) Representations of integers by positive definite forms over arithmetic progressions. **(81k:10029)**

Báyer, Pilar. The irregularity index of prime numbers. (Spanish) **(81h:12003)**

Deligne, Pierre. Valeurs de fonctions L et périodes d'intégrales. **(81d:12009)**

Fields, K. L. Locally minimal Epstein zeta functions. **(81j:10036)**

Heyde, C. C. A log log improvement to the Riemann hypothesis for the Hawkins random sieve. **(81h:60039)**

Iwaniec, Henryk. On mean values for Dirichlet's polynomials and the Riemann zeta-function. **(81m:10076)**

(Koblitz, Neal) See Deligne, Pierre, **(81d:12009)**

(Ogus, Arthur) See Deligne, Pierre, **(81d:12009)**

Rane, V. V. On the mean square value of Dirichlet L -series. **(81h:10062)**

Rohrich, David E. On the L -functions of canonical Hecke characters of imaginary quadratic fields. **(81m:12020)**

Shimura, Goro. The arithmetic of certain zeta functions and automorphic forms on orthogonal groups. **(81g:10041)**

Stein, Alan H. See An, Chung Ming, **(81k:10029)**

Terras, Audrey. The minima of quadratic forms and the behavior of Epstein and Dedekind zeta functions. **(81m:10043)**

Venkov, A. B. Spectral theory of automorphic functions, the Selberg zeta function and some problems of analytic number theory and mathematical physics. (Russian) **(81c:10034)**

Vigneras, Marie-France. La fonction zêta de Selberg. **(81d:10022)**

Weinstein, Lenard. The mean value of the Artin L -series and its derivative of a cubic field. **(81a:12013)**

10H15 Distribution of primes and of integers with specified multiplicative properties

Alladi, K. (with Erdős, Paul) On the asymptotic behavior of large prime factors of integers. **81c:10049**

Cook, Roger J. An upper bound for the sum of large differences between prime numbers. **81m:10078**

De Koninck, Jean-Marie (with Hensley, Douglas) Sums taken over $n < x$ with prime factors $< y$ of $z^{(n)}$, and their derivatives with respect to z . **81k:10065**

Ding, Xia Xi. See Pan, Cheng Dong, **81j:10063**

Erdős, Paul (with Sárközy, A.) On the prime factors of $(\frac{n}{2})$ and of consecutive integers. **81k:10066**

(with Pomerance, Carl) Matching the natural numbers up to n with distinct multiples in another interval. **81h:10053**

See also Alladi, K., **81c:10049**

Fischer, Karl-Heinz. Über die Anzahl der Gitterpunkte auf Kreisen mit quadratischem Radienquadraten. **81m:10079**

Gaigalas, E. The distribution of primes in two quadratic imaginary number fields. II. (Russian. Lithuanian and English summaries) **81k:10067**

Heath-Brown, D. R. (with Iwaniec, Henryk) On the difference between consecutive primes. **81h:10064**

The differences between consecutive primes. III. **81f:10055**

Hensley, Douglas. See De Koninck, Jean-Marie, **81k:10065**

Iwaniec, Henryk. See Heath-Brown, D. R., **81h:10064**

Kaufman, R. M. The distribution of (\sqrt{p}) . (Russian) **81a:10055**

Laurinćikas, Antanas Sur les séries de Dirichlet et les polynômes trigonométriques. 81m:10080

Lucht, Lutz Zur Gaußschen Funktionalgleichung für die Gamma-Funktion auf multiplikativen Zahlenmengen. 81c:10050

Motohashi, Yoichi A note on almost-primes in short intervals. 81a:10056

Narlikar, M. J. On a theorem of Erdős and Szemerédi. 81j:10062

Pan, Cheng Dong (with Ding, Xia Xi) A new mean value theorem. 81j:10063

Peretti, Aldo New insights for old problems. I. Asymptotic exact formulas for the number of twin, Mersenne & Fermat primes, solutions of Fermat's equation, etc. 81a:10057a

Errata: "New insights for old problems. I". 81a:10057b

New insights for old problems. II. Asymptotic exact formulas for Goldbach partitions, prime numbers of the form $n^2 + a$. 81a:10057c

Pomerance, Carl A note on the least prime in an arithmetic progression. 81m:10081

See also Erdős, Paul, 81i:10053

Postnikov, A. G. (with Romanov, N. P.) A simplification of A. Selberg's elementary proof of the asymptotic law of distribution of prime numbers. (See 80m:00006)

Romanov, N. P. See Postnikov, A. G. (See 80m:00006)

Sárközy, A. See Erdős, Paul, 81k:10066

Suryanarayana, D. On the order of the error function of the square-full integers. 81a:10054

Tenenbaum, Gérard Sur le procédé de sommation de Borel et la répartition du nombre des facteurs premiers des entiers. 81j:10058

Wolke, Dieter Fast-Primzahlen in kurzen Intervallen. 81b:10055

secondary classifications:

Korčagin, V. I. The distribution of prime ideal numbers in a quadratic field. (Russian. Tajiki summary) (81a:12003)

Lavrik, A. F. On the theory of distribution of primes based on I. M. Vinogradov's method of trigonometric sums. (See 80m:00006)

Motohashi, Yoichi A note on the large sieve. IV. (81j:10071)

Odani, R. W. K. The distribution of integral and prime-integral values of systems of full-norm polynomials and affine-decomposable polynomials. (81c:12023)

Turk, Johannes Wilhelmus Maria ★ Multiplicative properties of neighbouring integers. (81j:10012)

10H20 Distribution in progressions and other sequences [See also 10L20.]

Fomenko, O. M. The distribution of values of multiplicative functions modulo a prime number. (Russian) 81k:10068

Grosswald, Emil Arithmetic progressions of arbitrary length and consisting only of primes and almost primes. 81k:10069

Kilmov, N. I. The small sieve. (Russian) 81j:10059

Mauchaire, Jean-Loup Sur certaines fonctions arithmétiques. 81d:10033

Rylova, N. P. An elementary proof of a theorem on primes in arithmetic progressions. (Russian) 81k:10070

Wagstaff, Samuel S., Jr. Greatest of the least primes in arithmetic progressions having a given modulus. 81c:10038

secondary classifications:

Pomerance, Carl A note on the least prime in an arithmetic progression. (81m:10081)

Stepanavskas, G. Distribution of additive arithmetic functions on an arithmetic progression. (Russian. Lithuanian and German summaries) (81j:10069)

Tkachenko, Ju. T. Maximal sets of integers that do not contain an arithmetic progression of length 3 on $[0; 3^n - 1]$. (Russian) (81k:10092)

10H22 Turán theory

Thurheer, Peter Une généralisation du théorème de Wiener-Ikehara. (English summary) 81c:10051

Turán, Pál On a problem of E. Landau. 81k:10071

secondary classifications:

Gaigalas, È. The distribution of primes in two quadratic imaginary number fields. I. (Russian. Lithuanian and English summaries) (81b:10026)

10H25 Asymptotic results on arithmetic functions

Babu, Guttu Jogesh See Erdős, Paul; et al., 81j:10062

Balasubramanian, R. (with Ramachandra, K.) Effective and non-effective results on certain arithmetical functions. 81i:10056

Boitruaev, U. Additive problems with an increasing number of terms with nonintegral exponent. (Russian) 81j:10060

Čarier, U. Asymptotic behavior of the solutions of some differential-difference equations. (Russian. Tajiki summary) 81k:10072

A generalized problem of numbers with small and large prime divisors. (Russian. Tajiki summary) 81d:10034

Daboussi, Hédi Remarques sur les fonctions multiplicatives. 81d:10035

De Koninck, Jean-Marie (with Ivić, Aleksandar) Sums of reciprocals of certain additive functions. 81j:10061

Elliot, P. D. T. A. High-power analogues of the Turán-Kubilius inequality, and an application to number theory. 81m:10082

Mean value theorems for multiplicative functions bounded in mean α -power, $\alpha > 1$. 81i:10057

Erdős, Paul (with Babu, Guttu Jogesh; Ramachandra, K.) An asymptotic formula in additive number theory. II. 81j:10062

(with Kátai, I.) On the growth of some additive functions on small intervals. 81b:10029

(with Hall, R. R.) Values of the divisor function on short intervals. 81j:10064

Gafurov, N. The sum of the powers of the divisors of quadratic polynomials. (Russian. Tajiki summary) 81j:10065

On the incomplete sum of powers of divisors of quadratic polynomials. (Russian. Tajiki summary) 81j:10066

Gontziar, C. J. On the least common multiple of a set of integers not exceeding N . 81k:10073

Hall, R. R. See Erdős, Paul, 81j:10064

Hookey, Christopher On the numbers that are representable as the sum of two cubes. 81d:10036

Huxley, M. N. (with Nair, M.) Power free values of polynomials. III. 81m:10085

Ivić, Aleksandar See De Koninck, Jean-Marie, 81j:10061

Kanemitsu, Shigeru (with Sitaramachandra Rao, Rudrabhatla) On a kind of divisor problem. II. 81f:10056

(with Sitaramachandra Rao, Rudrabhatla) On a conjecture of S. Chowla and of S. Chowla and H. Walum. III. 81f:10057

Kanold, Hans-Joachim Über die Anzahl der natürlichen Zahlen, welche jeden Primteiler in mindestens h -ter Potenz enthalten. 81j:10063

Kátai, I. See Erdős, Paul, 81b:10029

Mercier, Armand Somme de fonctions multiplicatives restreinte à une progression arithmétique. 81a:10058

Identité pour $\sum_{n \leq x, n \in A(k)} (f(n)/n)$. 81m:10083

Somme de fonctions additives restreinte à une suite particulière. 81i:10058

Motohashi, Yoichi An asymptotic series for an additive divisor problem. 81j:10067

Murty, G. Sri Rama Chandra See Sitaramachandra Rao, Rudrabhatla, 81b:10030

Murty, M. Ram (with Murty, V. Kumar) Some results in number theory. I. 81j:10068

Murty, V. Kumar See Murty, M. Ram, 81j:10068

Nair, M. Power free values of polynomials. II. 81m:10084

See also Huxley, M. N., 81m:10085

Nicolas, Jean-Louis Sur les entiers n pour lesquels il y a beaucoup de groupes abéliens d'ordre n . 81c:10052

Petekuk, M. M. The sum of values of a function of divisors in arithmetic progressions with a difference equal to a power of an odd prime number. (Russian) 81c:10053

Ramachandra, K. See Erdős, Paul; et al., 81j:10062 and Balasubramanian, R., 81i:10056

Redmond, Don Omega theorems for a class of Dirichlet series. 81c:10054

de Riele, H. J. J. Computations concerning the conjecture of Mertens. 81c:10055

Ruzsa, Imre Z. Arithmetical functions. I. (Hungarian. English summary) 81k:10074a

Arithmetical functions. II. (Hungarian. Russian and English summaries) 81k:10074b

Sárközy, A. On distances near integers. I, II. 81c:10056

Shiu, P. A Brun-Titchmarsh theorem for multiplicative functions. 81b:10065

The maximum orders of multiplicative functions. 81i:10059

Sitaramachandra Rao, Rudrabhatla (with Murty, G. Sri Rama Chandra) On Mirsky's generalisation of a problem of Evelyn-Linfoot and Page in additive theory of numbers. 81b:10030

See also Kanemitsu, Shigeru, 81f:10056 and Kanemitsu, Shigeru, 81f:10057

Suryanarayana, D. On the average order of the function $E(x) = \sum_{n \leq x} \varphi(n) - 3x^2/\pi^2$. II. 81a:10059

Turk, Johannes Wilhelmus Maria Prime divisors of polynomials at consecutive integers. 81j:10069

secondary classifications:

Allen, S. (with Pleasants, P. A. B.) The number of different lengths of irreducible factorization of a natural number in an algebraic number field. (81i:12017)

Chidambaramswamy, J. Generalized Dedekind ψ -functions with respect to a polynomial. I. (81m:10007a)

Generalized Dedekind ψ -functions with respect to a polynomial. II. (81m:10007b)

De Koninck, Jean-Marie (with Hensley, Douglas) Sums taken over $n \leq x$ with prime factors $< y$ of $x^{1/n}$, and their derivatives with respect to x . (81k:10065)

Deshouillers, Jean-Marc (with Dress, François; Tenenbaum, Gérard) Lois de répartition des diviseurs. I. (81d:10043)

Dress, François See Deshouillers, Jean-Marc; et al., (81d:10043)

Erdős, Paul (with Kátai, I.) On the concentration of distribution of additive functions. (81d:10044)

Hensley, Douglas See De Koninck, Jean-Marie, (81k:10065)

Kátai, I. See Erdős, Paul, (81d:10044)

Krilius, Z. An estimate of the rate of convergence in the integral limit theorem for multiplicative functions. (Russian. Lithuanian and English summaries) (81j:10081)

Mays, Michael E. A lower bound on the number of finite simple groups. (81k:20027)

Peretti, Aldo New insights for old problems. I. Asymptotic exact formulas for the number of twin, Mersenne & Fermat primes, solutions of Fermat's equation, etc. (81a:10057a)

Errata: "New insights for old problems. I". (81a:10057b)

New insights for old problems. II. Asymptotic exact formulas for Goldbach partitions, prime numbers of the form $n^2 + a$. (81a:10057c)

Pleasants, P. A. B. See Allen, S., (81i:12017)

Porubský, Štefan Über die Dichtigkeit der Werte multiplikativer Funktionen. (Russian summary) (81a:10066)

Suryanarayana, D. On the order of the error function of the square-full integers. (81i:10054)

Tahtadjan, L. A. See Vinogradov, A. I., (81m:10061)

Tenenbaum, Gérard See Deshouillers, Jean-Marc; et al., (81d:10043)

Vinogradov, A. I. (with Tahtadjan, L. A.) Theory of the Eisenstein series for the group $SL(3, \mathbb{R})$ and its application to a binary problem. I. Fourier expansion of the highest Eisenstein series. (Russian) (81m:10061)

10H26 Asymptotic results on counting functions for algebraic and topological structures

secondary classifications:

- Gaigalas, Ē. The distribution of primes in two quadratic imaginary number fields. II. (Russian, Lithuanian and English summaries) (81k:10067)
 Knopfmacher, John ★Analytic arithmetic of algebraic function fields. (81d:10031)

10H30 Sieves, upper and lower estimates

- Erdős, Paul (with Ruzsa, Imre Z.) On the small sieve. I. Sifting by primes. 81k:10075
 Iwaniec, Henryk Sieve methods. 81g:10064
 Rosser's sieve. 81m:10086
 Lavrik, A. F. A survey of the large sieve of Ju. V. Linnik and the density theory of zeros of L -functions. (Russian) 81f:10058
 Motohashi, Yoichi A note on the large sieve. III. 81j:10070
 A note on the large sieve. IV. 81j:10071
 Ruzsa, Imre Z. See Erdős, Paul, 81k:10075

secondary classifications:

- Heyde, C. C. A log log improvement to the Riemann hypothesis for the Hawkins random sieve. (81h:60039)
 Mañalá, Jean-Loup Sur certaines fonctions arithmétiques. (81d:10033)

10H32 Applications of sieve methods

- Pomerance, Carl Popular values of Euler's function. 81k:10076
 Wang, Yunn On sieve method and Goldbach problem. 81i:10060

secondary classifications:

- Erdős, Paul (with Kátai, I.) On the growth of some additive functions on small intervals. (81h:10029)
 (with Hall, R. R.) Values of the divisor function on short intervals. (81j:10064)
 (with Ruzsa, Imre Z.) On the small sieve. I. Sifting by primes. (81k:10075)
 Grosswald, Emil Arithmetic progressions of arbitrary length and consisting only of primes and almost primes. (81k:10069)
 Hall, R. R. See Erdős, Paul, (81j:10064)
 Hooley, Christopher On the numbers that are representable as the sum of two cubes. (81d:10036)
 Iwaniec, Henryk Sieve methods. (81g:10064)
 Kátai, I. See Erdős, Paul, (81h:10029)
 Klimov, N. I. The small sieve. (Russian) (81g:10059)
 Langevin, Michel Facteurs premiers des coefficients binomiaux. (81m:10010)
 Long, Rui Lin Sommes partielles de Fourier des fonctions bornées. (English summary) (81b:42036)
 Motohashi, Yoichi An asymptotic series for an additive divisor problem. (81j:10067)
 Ruzsa, Imre Z. See Erdős, Paul, (81k:10075)

10H35 Distribution of residue classes (primitive roots, power residues, etc.)

secondary classifications:

- Lenstra, Hendrik W., Jr. Perfect arithmetic codes. (81c:94032)

10H40 Generalized primes and integers

- Müller, Helmut Eine Bemerkung zur Zahlentheorie auf freien Halbgruppen. 81h:10066

secondary classifications:

- Knopfmacher, John ★Analytic arithmetic of algebraic function fields. (81d:10031)

10H45 Almost-periodic number-theoretic functions [See also 10K35.]

secondary classifications:

- Queffelec, Martine Mesures spectrales associées à certaines suites arithmétiques. (English summary) (81c:10071)

10H99 None of the above, but in this section

- Bentz, Hans-J. (with Pintz, János) Über eine Verallgemeinerung des Tschebyschef-Problems. 81m:10087
 Laurinćikas, Antanas A limit theorem for Dirichlet L -series. (Russian) 81g:10065
 Pintz, János See Bentz, Hans-J., 81m:10087

secondary classifications:

- Carlitz, Leonard Some multiple power series with zero-one coefficients. (81c:05009)
 Mamer, David W. Sur les fonctions entières à valeurs entières. (English summary) (81i:10048)
 Schwarz, Wolfgang See Spilker, Jürgen, (81d:32002)
 Shorey, T. N. On the greatest prime factor of $(ax^m + by^n)$. (81h:10023)
 Spilker, Jürgen (with Schwarz, Wolfgang) Wiener-Lévy-Sätze für absolut konvergente Reihen. (81d:32002)

10Jxx Additive theory

- Vaughan, R. C. A survey of some important problems in additive number theory. 81c:10057

10J05 Sums of squares

- Choi, S. L. G. (with Erdős, Paul; Nathanson, Melvyn B.) Lagrange's theorem with $N^{1/2}$ squares. 81k:10077
 Dai, Zong Duo (with Lam, Tsit Yuen; Peng, C. K.) Levels in algebra and topology. 81j:10072
 Erdős, Paul See Choi, S. L. G.; et al., 81k:10077
 Lam, Tsit Yuen See Dai, Zong Duo; et al., 81j:10072
 Nathanson, Melvyn B. See Choi, S. L. G.; et al., 81k:10077
 Peng, C. K. See Dai, Zong Duo; et al., 81j:10072

secondary classifications:

- Scharlau, Rudolf On the Pythagoras number of orders in totally real number fields. (81g:10036)
 Darstellbarkeit von ganzen Zahlen durch Quadratsummen in einigen totalreellen Zahlkörpern. (81m:10034)

10J06 Sums of higher powers

- Balasubramanian, R. On Waring's problem: $g(4) < 21$. 81m:10088
 Laborde, Marc Équidistribution des solutions du problème de Waring. 81c:10058
 Marković, O. F. Investigation of a singular sum in systems of Waring type by the elementary smoothing method. (Russian) 81k:10078
 Revoy, Ph. Sommes de bicarrés dans $\mathbb{Z}[\sqrt{-1}]$ et $\mathbb{Z}[\sqrt{1}]$. 81j:10073

secondary classifications:

- Chinburg, Ted "Easier" Waring problems for commutative rings. (81i:10071)
 Minoli, Daniel Inductive formulae for general sum operations. (81g:65002)

10J10 Applications of Hardy-Littlewood method [See also 10B35.]

- Garanin, V. A. (with Poljanskii, A. A.) Some analogues of the Hardy-Littlewood problem. (Russian) 81m:10089
 Poljanskii, A. A. See Garanin, V. A., 81m:10089
 Thanigasalam, K. On sums of powers and a related problem. 81i:10061
 Verner, Lawrence A singular series in characteristic p . (Russian summary) 81i:10062

secondary classifications:

- Crandall, R. E. (with Penk, M. A.) A search for large twin prime pairs. (81a:10010)
 Liu, Ming Chit Recent development of some analogues of Waring's problem and Dirichlet's theorem involving primes. (81f:10047)
 Penk, M. A. See Crandall, R. E., (81a:10010)
 Podsypanin, E. V. Distribution of integer points on the determinant surface. (Russian) (81k:10079)
 Schmidt, Wolfgang M. Small zeros of additive forms in many variables. II. (81a:10027)
 Verner, Lawrence A singular series in characteristic p . (Russian summary) (81h:10033)

10J15 Additive questions involving primes

- Bredihin, B. M. Partition into terms with prime numbers. (Russian) 81a:10060
 Castoldi, Luigi Naturals and primes with signs; statement of some conjectures. (Italian. English summary) 81h:10067
 Jakovleva, N. A. Binary additive problems of Hilbert-Euler type for almost all even numbers. (Russian) 81j:10074
 Jurat', I. E. The number of terms of a random sequence that are representable by the sum of two primes. (Russian. English summary) 81b:10031
 Lavrik, A. F. On the theory of distribution of primes based on I. M. Vinogradov's method of trigonometric sums. (See 80m:00006)
 On a theorem in additive number theory. (See 80m:00006)
 Porubský, Štefan Sums of distinct terms from a fixed sequence. 81m:10090
 Srinivasan, Seshadri A remark on Goldbach's problem. 81j:10075
 Stepanova, M. B. Application of a heuristic principle in binary problems with primes and powers of two. (Russian) 81j:10076
 Tanaka, Minoru Some results on additive number theory. III. 81d:10037
 Some results on additive number theory. IV. 81d:10038
 Vaughan, R. C. Recent work in additive prime number theory. 81j:10077

secondary classifications:

- Wang, Yuan On sieve method and Goldbach problem. (81i:10060)

10J20 Analytic work on partitions [See also 10A45.]

- Andrews, George E. (with Bressoud, David M.) Vanishing coefficients in infinite product expansions. 81f:10059
 Bressoud, David M. See Andrews, George E., 81f:10059
 Kaneiwa, Ryuji An asymptotic formula for Cayley's double partition function $p(2; n)$. 81c:10059
 Pomerance, Carl (with Suryanarayana, D.) On a problem of Evelyn-Linfoot and Page in additive number theory. 81g:10066
 Raitzin, Carlos A new solution of the problem of partitions. 81d:10039
 Riddell, J. Partitions into small primes. 81a:10061
 Suryanarayana, D. See Pomerance, Carl, 81g:10066

- Szalay, M. (with Turán, Pál) On some problems of the statistical theory of partitions with application to characters of the symmetric group. III. **81i:10063**
- Turnopolska-Weiss, Marysia On the number of lattice points in planar domains. **81i:10068**
- Turán, Pál See Szalay, M., **81i:10063**

secondary classifications:

- Jain, V. K. Some transformations of basic hypergeometric series and their applications. **(81c:33001)**
- Tanaka, Minoru Some results on additive number theory. III. **(81d:10037)**

10J25 Lattice points in large regions

- D'Ambrosio, Ubratan See Mangeron, Dumitru Ion; et al., **81j:10078**
- Diviš, Bohuslav Ω -estimates in lattice point theory. **81d:10040**
- Mangeron, Dumitru Ion (with Šestopal, A. F.; D'Ambrosio, Ubratan; Njang, S.) Contribution to the problem of the asymptotic behavior of the number of eigenvalues. I. The estimation of certain expansions in Bessel functions. (Russian. Romanian summary) **81j:10078**
- Njang, S. See Mangeron, Dumitru Ion; et al., **81j:10078**
- Nowak, Werner-Georg Über die Anzahl der Gitterpunkte in verallgemeinerten Kreissektoren. (English summary) **81a:10062**
- A nonconvex generalization of the circle problem. **81c:10060**
- Pačev, U. M. On the distribution of integer points on some two-sheeted hyperboloids. (Russian) **81m:10091**
- Podybnyanin, E. V. Distribution of integer points on the determinant surface. (Russian) **81k:10079**
- Rosen, Kenneth H. Lattice points in four-dimensional tetrahedra and a conjecture of Rademacher. **81m:10092**
- On the parity of the number of lattice points in certain tetrahedra. **81m:10093**
- Schoenberg, I. J. On a problem of Steinhaus on lattice points. **81a:10063**
- Šestopal, A. F. See Mangeron, Dumitru Ion; et al., **81j:10078**
- Skřivanov, M. M. See Vinogradov, A. I., **81j:10079**
- Thurnheer, Peter Le terme de reste dans un problème de réseau hyperbolique. (English summary) **81c:10061**
- Vinogradov, A. I. (with Skřivanov, M. M.) The number of lattice points inside the sphere with variable center. (Russian. English summary) **81j:10079**
- Yamamoto, Yoshitiko On the number of lattice points in the square $|x| + |y| < u$ with a certain congruence condition. **81c:10062**

secondary classifications:

- Asakura, Fumioki The asymptotic distribution of eigenvalues for the Laplacian in semi-infinite domains. **(81b:35077)**
- Borov, V. V. Asymptotic distribution of eigenvalues of a second-quantized operator. (Russian) **(81d:58055)**
- Brüning, Jochen (with Heintze, Ernst) Representations of compact Lie groups and elliptic operators. **(81b:58039)**
- Ellison, William Vinogradov's mean value theorem. **(81k:10057)**
- Fischer, Karl-Heinz Über die Anzahl der Gitterpunkte auf Kreisen mit quadratischen Radienquadraten. **(81m:10079)**
- Guillemin, Victor Some classical theorems in spectral theory revisited. **(81b:58045)**
- Hall, George L. Ewald evaluation and Poisson summation formulas for a class of near-Coulombic lattice sums. **(81d:42023)**
- Heintze, Ernst See Brüning, Jochen, **(81b:58039)**
- Kuratsubo, Shigehiko Note on Fourier coefficients. **(81b:42021)**
- Piebler, Joachim Über Gitterpunkte in Kegeln. **(81f:90074)**
- Seeländer, Jörg Zur Existenz von Gitter- und Halbgitterpunkten in bestimmten polyedrischen Mengen. **(81f:90075)**
- Venkov, A. B. On the remainder term in the Weyl-Selberg asymptotic formula. (Russian. English summary) **(81k:58070)**

10J99 None of the above, but in this section

10Kxx Probabilistic theory; measure, dimension, etc.

- Manstavicius, E. Probabilistic number theory. (Russian. Lithuanian and English summaries) **81k:10080**

10K05 Distribution modulo one [See also 10F40.]

- Borel, Jean-Pierre Équirépartition modulo 1 de la suite (αx_n) où x_n décrit un semi-groupe additif de nombres réels. **81f:10060**
- Équirépartition modulo 1 de semi-groupes additifs de nombres réels. (English summary) **81j:10060**
- Choquet, Gustave Répartition des nombres $k(3/2)^n$; et ensembles associés. (English summary) **81c:10063**
- Coquet, Jean On the uniform distribution modulo one of subsequences of polynomial sequences. II. **81m:10094**
- Dross, François Le théorème DDT. **81k:10081**
- Erős, Paul (with Wagstaff, Samuel S., Jr.) The fractional parts of the Bernoulli numbers. **81c:10064**
- Ermise, Jean-Louis Courants ergodiques et répartition géométrique. **81m:10095**
- Fomenko, O. M. See Golubeva, E. P., **81f:10061**
- Golubeva, E. P. (with Fomenko, O. M.) On the distribution of the sequence $b_p^{3/2}$ modulo 1. (Russian. English summary) **81f:10061**
- Hlawka, Edmund Gleichverteilung und Quadratwurzelschnecke. (English summary) **81k:10069**
- Houadonogbo, Victor Mesure de répartition d'une suite $(\theta^n)_{n \in \mathbb{N}}$ dans un corps de séries formelles sur un corps fini. (English summary) **81b:10032**

- Knight, Melvin J. (with Webb, William A.) Uniform distribution of third-order linear recurrence sequences. **81k:10082**
- Losert, Viktor (with Rindler, Harald) Almost constant sequences. **81k:10070**
- Mendès France, Michel Le théorème de van der Corput. **81k:10083**
- Niederreiter, Harald Nombres pseudo-aléatoires et équirépartition. **81k:10084**
- Nowak, Werner-Georg Einige spezielle metrische Resultate zur quantitativen Theorie der Gleichverteilung modulo 1. **81m:10096**
- Zur Gleichverteilung mod 1 der Potenzen von Quaternionen mit Norm größer als 1. **81k:10085**
- Rindler, Harald Lineare Gleichverteilung. (English summary) **81i:10064**
- See also Losert, Viktor, **81k:10070**
- Schoifengeier, Johannes Über die Diskrepanz von Folgen (a_n^b) . **81a:10064**
- Shi, Shu Zhong Une généralisation des "bons treillis". (English summary) **81f:10062**
- Šparlinská, I. E. Completely uniform distribution. (Russian) **81k:10033**
- Taschner, R. J. Gleichverteilte Doppelfolgen und eine Abschätzung der C-Diskrepanz. (English summary) **81k:10071**
- Tichy, Robert F. Diskrepanz von Ketten. II. (English summary) **81f:10063**
- Veech, William A. Ergodic theory and uniform distribution. **81g:10067**
- Wagstaff, Samuel S., Jr. See Erős, Paul, **81c:10064**
- Webb, William A. See Knight, Melvin J., **81k:10082**

secondary classifications:

- Baker, R. C. Exceptional sets in uniform distribution. **(81d:10040)**
- Braten, Eric An improved measure of the nonuniformity of the distribution of a sequence. **(81b:65004)**
- Coquet, Jean Sur certaines suites uniformément équiréparties modulo 1. **(81j:10053a)**
- Sur certaines suites uniformément équiréparties modulo un. II. (English summary) **(81j:10053b)**
- Fujii, Akio On the zeros of Dirichlet L -functions. III. **(81g:10056a)**
- On the zeros of Dirichlet L -functions. IV. **(81g:10056b)**
- On the zeros of Dirichlet L -functions. V. **(81g:10057a)**
- On the zeros of Dirichlet L -functions. VI. **(81g:10057b)**
- On the zeros of Dirichlet L -functions. VII. **(81g:10057c)**
- Hlawka, Edmund Weierstraßer Approximationssatz und Gleichverteilung. (English summary) **(81a:41013)**
- Horbowicz, Józef An asymptotic relation between the extreme discrepancy and the L_2 -discrepancy. **(81m:10099)**
- Katznelson, Y. On $\alpha\beta$ -sets. **(81h:10074)**
- Losert, Viktor (with Rindler, Harald) A note on random walks on compact groups. **(81d:60069)**
- Riley, G. W. On spectral properties of skew products over irrational rotations. **(81f:28018)**
- Rindler, Harald See Losert, Viktor, **(81d:60069)**
- Schmidt, Wolfgang M. ★Lectures on irregularities of distribution. **(81d:10047)**
- (Shorey, T. N.) See Schmidt, Wolfgang M., **(81d:10047)**
- Stegbuchner, Hans Dichteschätzungen mit Gleichverteilungsmethoden. (English summary) **(81f:62071)**
- Tijdeman, R. (with Wagner, Gerold) A sequence has almost nowhere small discrepancy. **(81m:10100)**
- Wagner, Gerold See Tijdeman, R., **(81m:10100)**

10K10 Algorithms and expansions [See also 10A30, 10F20.]

- Cabane, R. Sur les transformations linéaires modulo un. (English summary) **81d:10041**
- Hofbauer, Franz (with Strasser, R.) β -Shifts haben ein eindeutiges Maß mit maximaler Entropie. **81c:10065**
- del Junco, Andrés (with Rosenblatt, Joseph) Counterexamples in ergodic theory and number theory. **81d:10042**
- Rieger, Georg J. Mischung und Ergodizität bei Kettenbrüchen nach nächsten Ganzen. **81c:10066**
- Rosenblatt, Joseph See del Junco, Andrés, **81d:10042**
- Strasser, R. See Hofbauer, Franz, **81c:10065**
- Szász, P. On the length of continued fractions representing a rational number with given denominator. **81m:10097**

secondary classifications:

- Liu, Wen A class of singular monotone functions and a metric property of binary decimals. (Chinese. English summary) **(81j:10011)**
- Mendès France, Michel A propos de la suite de Morse. **(81f:12001)**

10K15 Diophantine approximation [See also 10Fxx.]

- Bernik, V. I. The exact order of approximation of almost all points of a parabola. (Russian) **81c:10067**
- A metric theorem on the simultaneous approximation of zero by values of integer polynomials. (Russian) **81c:10068**
- Meřník, Ju. V. Diophantine approximations on the circle and Hausdorff dimension. (Russian) **81c:10069**
- Šelín, P. Letter to the editors: "Metric" approach to certain Diophantine inequalities" [Litovsk. Mat. Sb. 18 (1978), no. 1, 217-223; MR 58 #5567]. (Russian) **81f:10064**
- Silesoraitienė, R. Some Diophantine approximations. (Russian. Lithuanian and English summaries) **81g:10068**
- Vil'činskij, V. T. Rational approximations to almost all real numbers. (Russian. English summary) **81h:10065**

secondary classifications:

- Kaufman, Robert P. On transformations of exceptional sets. **(81g:40011)**

10K20 Arithmetic functions

- Borovskii, Ju. V.** (with Koroljuk, V. S.) Additive problems of analytic number theory and asymptotics of the distributions of rank statistics. (Russian) **81e:10039**
- Bovey, J. D.** An approximate probability distribution for the order of elements of the symmetric group. **81i:10066**
- The probability that some power of a permutation has small degree. **81i:10067**
- Deshouillers, Jean-Marc** (with Dress, François; Tenenbaum, Gérard) Lois de répartition des diviseurs. I. **81d:10043**
- Dress, François** See **Deshouillers, Jean-Marc**; et al., **81d:10043**
- Elliott, P. D. T. A.** (with Erdős, Paul) Additive arithmetic functions bounded by monotone functions on thin sets. **81m:10098**
- (with Erdős, Paul) The tails of infinitely divisible laws and a problem in number theory. **81h:10034**
- Erdős, Paul** (with Kátai, I.) On the concentration of distribution of additive functions. **81d:10044**
- See also **Elliott, P. D. T. A.**, **81h:10034** and **Elliott, P. D. T. A.**, **81m:10098**
- Kátai, I.** See **Erdős, Paul**, **81d:10044**
- Koroljuk, V. S.** See **Borovskii, Ju. V.**, **81e:10039**
- Kribius, Z.** An estimate of the rate of convergence in the integral limit theorem for multiplicative functions. (Russian. Lithuanian and English summaries) **81j:10081**
- Nanopoulos, Photius** Mesures de probabilité sur les entiers et ensembles progressions. **81h:10035**
- Stepanavskas, G.** Distribution of additive arithmetic functions on an arithmetic progression. (Russian. Lithuanian and German summaries) **81g:10069**
- Tenenbaum, Gérard** Lois de répartition des diviseurs. **81h:10072**
- See also **Deshouillers, Jean-Marc**; et al., **81d:10043**
- Tuljaganova, M. I.** Distribution of values of additive functions on "rare" sets. (Russian) **81k:10086**
- Usmanov, H. H.** Limit theorems in function spaces for linear forms of additive functions defined on sparse sets. (Russian. Tajiki summary) **81d:10045**
- Limit theorems in function spaces for additive functions on sparse sets. (Russian. Tajiki summary) **81d:10046**

secondary classifications:

- Elliott, P. D. T. A.** On certain asymptotic functional equations. (**81e:39003**)
- Mean value theorems for multiplicative functions bounded in mean α -power, $\alpha > 1$. (**81i:10057**)
- On sums of an additive arithmetic function with shifted arguments. (**81i:10006**)
- Erdős, Paul** Some unconventional problems in number theory. (**81h:10001**)
- Fomenko, O. M.** The distribution of values of multiplicative functions modulo a prime number. (Russian) (**81k:10068**)
- Laurinćikas, Antanas** Sur les séries de Dirichlet et les polynômes trigonométriques. (**81m:10080**)
- Ruzsa, Imre Z.** Arithmetical functions. II. (Hungarian. Russian and English summaries) (**81k:10074b**)

10K25 Normal numbers

- Pollington, A. D.** The Hausdorff dimension of a set of nonnormal well approximable numbers. **81j:10082**
- Queffelec, Martine** Application de la théorie des algèbres de mesures à l'étude des mesures spectrales. **81f:10065**
- Volkman, Bodo** Un problème concernant des nombres normaux. **81f:10066**

10K30 Irregularities of distribution

- Frolov, K. K.** Upper bound of the discrepancy in metric L_p , $2 < p < \infty$. (Russian) **81k:10087**
- Hellegalek, Peter** Zur Konvergenz der L_p -Diskrepanz gegen die extreme Diskrepanz. (English summary) **81g:10070**
- Horbowicz, Józef** An asymptotic relation between the extreme discrepancy and the L_p -discrepancy. **81m:10099**
- Linhart, J.** (with Österreicher, Ferdinand) Gleichmäßige Verteilung von Punkten in gewissen metrischen Räumen, speziell auf der Kugel. (English summary) **81h:10073**
- Österreicher, Ferdinand** See **Linhart, J.**, **81h:10073**
- Roth, K. F.** On irregularities of distribution. III. **81a:10065**
- Sárközy, A.** Some remarks concerning irregularities of distribution of sequences of integers in arithmetic progressions. III. **81g:10071**
- Some remarks concerning irregularities of distribution of sequences of integers in arithmetic progressions. IV. **81g:10072**
- Schmidt, Wolfgang M.** ★ Lectures on irregularities of distribution. **81d:10047**
- (Shorey, T. N.) See **Schmidt, Wolfgang M.**, **81d:10047**
- Tijdeman, R.** (with Wagner, Gerold) A sequence has almost nowhere small discrepancy. **81m:10100**
- Wagner, Gerold** See **Tijdeman, R.**, **81m:10100**

secondary classifications:

- Taschner, R. J.** Gleichverteilte Doppelfolgen und eine Abschätzung der C-Diskrepanz. (English summary) (**81h:10071**)

10K35 Harmonic analysis and almost periodicity [See also 10H45.]

- Coquet, Jean** Corrélation de suites arithmétiques. **81m:10101**
- Répartition modulo 1 des suites q -additives. **81j:10083**
- Kamae, Teturo** Spectral properties of arithmetic functions. **81f:10067**
- Queffelec, Martine** Sur la singularité des produits de Riesz et des mesures spectrales associées à la somme des chiffres. (English summary) **81g:10073**

secondary classifications:

- Daboussi, Hédi** Remarques sur les fonctions multiplicatives. (**81d:10035**)
- Lust-Piquard, F.** L'espace des fonctions presque-périodiques dont le spectre est contenu dans un ensemble compact dénombrable à la propriété de Schur. (**81m:43011**)

10K40 Non-Archimedean theory

- Meĭničuk, Ju. V.** Hausdorff dimension in Diophantine approximations of p -adic numbers. (Russian) **81c:10070**

10K50 Measure; Hausdorff dimension

- Baker, R. C.** Exceptional sets in uniform distribution. **81d:10048**
- Katznelson, Y.** On $\alpha\beta$ -sets. **81h:10074**

secondary classifications:

- Dressler, Robert E.** (with Pigno, Louis) The Haar measure of certain sets in the Bohr group. (**81j:43002**)
- Meĭničuk, Ju. V.** Diophantine approximations on the circle and Hausdorff dimension. (Russian) (**81c:10069**)
- Hausdorff dimension in Diophantine approximations of p -adic numbers. (Russian) (**81c:10070**)
- Pigno, Louis** See **Dressler, Robert E.**, (**81j:43002**)
- Pollington, A. D.** The Hausdorff dimension of a set of nonnormal well approximable numbers. (**81j:10082**)

10K99 None of the above, but in this section

- Deslauriers, Gilles** Distribution asymptotique du nombre de points marqués dans un agrégat de taille k sur une grille de rang deux. **81j:10084**
- Erdős, Paul** (with Hall, R. R.) The propinquity of divisors. **81m:10102**
- Hall, R. R.** See **Erdős, Paul**, **81m:10102**
- Rousseau-Egele, Jacques** Sur un théorème d'équidistribution forte. (English summary) **81c:10040**

secondary classifications:

- Barakat, Richard** A random Riemann zeta function and intersymbol interference. (**81b:94004**)
- Jurut', I. E.** The number of terms of a random sequence that are representable by the sum of two primes. (Russian. English summary) (**81b:10031**)
- Zaparov, T. M.** A uniform local theorem. (Russian) (**81j:10025**)

10Lxx Sequences of integers

10L02 Density of sum sets, analogues and generalizations

- Murata, Leo** On certain densities of sets of primes. **81k:10088**
- Nathanson, Melvyn B.** Sumsets contained in infinite sets of integers. **81j:10085**
- Turjányi, S.** Note on maximal asymptotic nonbases of zero density. **81f:10068**

10L05 Addition of sequences, additive bases [See also 05B10.]

- Burr, Stefan A.** On the completeness of sequences of perturbed polynomial values. **81j:10086**
- Deshouillers, Jean-Marc** (with Grekos, Georges) Propriétés extrêmes de bases additives. (English summary) **81i:10068**
- Erdős, Paul** (with Nathanson, Melvyn B.) Systems of distinct representatives and minimal bases in additive number theory. **81k:10089**
- (with Nathanson, Melvyn B.) Minimal asymptotic bases for the natural numbers. **81i:10069**
- Grekos, Georges** See **Deshouillers, Jean-Marc**, **81i:10068**
- Nathanson, Melvyn B.** Representation functions of sequences in additive number theory. **81g:10074**
- Additive h -bases for lattice points. **81e:10041**
- Sumsets of measurable sets. **81b:10036**
- See also **Erdős, Paul**, **81i:10069** and **Erdős, Paul**, **81k:10089**
- Quebbemann, Heinz-Georg** Ein Endlichkeitssatz für Klassenzahlen invarianter Formen. **81i:10070**
- Weinstein, Gerald** An algorithm for packing complements of finite sets of integers. **81d:10049**

secondary classifications:

- Danilov, A. N.** The Cauchy-Davenport-Chowla theorem for groups. (Russian) (**81m:20033**)
- Hu, Mèn Ch'ang** A note on sum-free sets of integers. (**81i:05019**)
- Isbell, John R.** Perfect addition sets. (**81m:05031**)

10L10 Special sequences (density, multiplicative, additive and other properties)

- Iséki, Kiyoshi** (with Takada, Ichiro) On Steinhaus' problem in number theory—computation of cyclic parts of Steinhaus' problem for power 9. **81k:10090**
- Porubský, Stefan** Über die Dichtigkeit der Werte multiplikativer Funktionen. (Russian summary) **81a:10066**
- Queffelec, Martine** Mesures spectrales associées à certaines suites arithmétiques. (English summary) **81c:10071**

Skof, Fulvia On arithmetic, additive, almost-periodic functions. (Italian. English summary) **81k:10091**

Šteinič, V. I. See **Uberman, V. I.**, **81a:10067**

Takada, Ichiro See **Isaki, Kiyoshi**, **81k:10090**

Uberman, V. I. (with **Šteinič, V. I.**) ★Исследование плотности аддитивных детектирующих числовых систем с помощью ЭЦВМ. (Russian) [Research on the density of additive detecting number systems by means of a computer] **81a:10067**

Wagstaff, Samuel S., Jr. Additive h -bases for n . **81m:10103**

secondary classifications:

Bicknell-Johnson, Marjorie See **Hoggatt, Verner E., Jr.**; et al., **(81d:90112)**

Caro, Yair On a division property of consecutive integers. **(81g:10003)**

Dekking, F. M. Strongly nonrepetitive sequences and progression-free sets. **(81b:05027)**

Deslauriers, Gilles Distribution asymptotique du nombre de points marqués dans un agrégat de taille k sur une grille de rang deux. **(81j:10084)**

Erdős, Paul (with **Wagstaff, Samuel S., Jr.**) The fractional parts of the Bernoulli numbers. **(81c:10064)**

Guaraldo, Rosalind On the density of the image sets of certain arithmetic functions. II. **(81a:10008a)**

On the density of the image sets of certain arithmetic functions. III. **(81a:10008b)**

Guy, Richard K. (with **Selfridge, J. L.**) Corrigendum to: "What drives an aliquot sequence?" [Math. Comp. 29 (1975), 101-107; MR 52 #5542]. **(81f:10008)**

Hindman, Neil Partitions and sums of integers with repetition. **(81b:05018)**

Hoggatt, Verner E., Jr. (with **Bicknell-Johnson, Marjorie**; **Sarsfield, Richard**) A generalization of Wythoff's game. **(81d:90112)**

Narlikar, M. J. On a theorem of Erdős and Szemerédi. **(81j:10062)**

Prodinger, Helmut (with **Urbanek, Friedrich J.**) Infinite 0-1 sequences without long adjacent identical blocks. **(81a:05032)**

Sarsfield, Richard See **Hoggatt, Verner E., Jr.**; et al., **(81d:90112)**

Selfridge, J. L. See **Guy, Richard K.**, **(81f:10008)**

Szemerédi, Endre Regular partitions of graphs. (French summary) **(81b:05095)**

Tenenbaum, Gérard Lois de répartition des diviseurs. **(81h:10072)**

Tijdeman, R. Distance sets of sequences of integers. **(81d:10050)**

Urbanek, Friedrich J. See **Prodinger, Helmut**, **(81a:05032)**

Wagner, Carl G. Minimal multiplicative covers of an integer. **(81a:05008)**

Wagstaff, Samuel S., Jr. See **Erdős, Paul**, **(81c:10064)**

10L15 Representation functions

10L20 Arithmetic progressions [See also **10H20**.]

Glagolev, V. V. Covering by arithmetic progressions. (Russian) **81g:10075**

Novikov, S. V. (with **Oleksin, S. V.**) On the covering of a set of arithmetic progressions. (Russian. English summary) **81g:10076**

Oleksin, S. V. See **Novikov, S. V.**, **81g:10076**

Pomerance, Carl Collinear subsets of lattice point sequences—an analog of Szemerédi's theorem. **81m:10104**

Thouvenot, Jean-Paul La démonstration de Furstenberg du théorème de Szemerédi sur les progressions arithmétiques. **81c:10072**

Thakern, Ju. T. Maximal sets of integers that do not contain an arithmetic progression of length 3 on $[0; 3^n - 1]$. (Russian) **81k:10092**

secondary classifications:

Boelter, Michael D. (with **O'Neil, Patrick E.**) Some new van der Waerden numbers. **(81d:05003)**

Haight, J. A. Systèmes recouvrants de congruences. **(81k:10002)**

Langevin, Michel Plus grand facteur premier d'entiers en progression arithmétique. **(81a:10011)**

O'Neil, Patrick E. See **Boelter, Michael D.**, **(81d:05003)**

10L99 None of the above, but in this section

Boyd, David W. Some integer sequences related to Pisot sequences. **81a:10068**

Powell, Barry J. Primitive densities of certain sets of primes. **81k:10093**

Tijdeman, R. Distance sets of sequences of integers. **81d:10050**

secondary classifications:

Haight, J. A. Covering systems of congruences, a negative result. **(81c:10003)**

10Mxx Rational arithmetic of algebraic objects

10M05 Polynomials [See also **13F20**.]

Chinburg, Ted "Easier" Waring problems for commutative rings. **81i:10071**

Desimirova, L. K. Some theorems on the irreducibility of integral polynomials. (Russian) **81i:10072**

Jones, Burton W. A second variation on a problem of Diophantus and Davenport. **81h:10075**

Mihajlović, Borivoj On some classes of spectra and their application. **81c:10073**

Perelli, A. (with **Zannier, U.**) An arithmetic property of polynomials. (Italian. English summary) **81i:10073**

Zannier, U. See **Perelli, A.**, **81i:10073**

secondary classifications:

Jones, James P. Diophantine representation of Mersenne and Fermat primes. **(81a:10020)**

Trotter, P. G. Ideals in $\mathbb{Z}[x, y]$. **(81g:13006)**

10M10 Valued fields [See also **12J10**.]

Gregory, Robert Todd The use of finite-segment p -adic arithmetic for exact computation. **81c:10042**

secondary classifications:

Alparslan, Erhan A computer number base in finite p -adic numbers. (Turkish summary) **(81c:68003)**

Basarab, Șerban A. Towards a general theory of formally p -adic fields. **(81c:12028)**

10M15 Ordered fields [See also **12J15**.]

10M20 Matrices [See also **15A36**.]

secondary classifications:

Laska, Michael A note on finite linear groups. **(81k:20016)**

10M99 None of the above, but in this section

10Nxx Connections with logic

10N05 Decidability [See also **03B25**.]

Jones, James P. Undecidable Diophantine equations. **81k:10094**

Koppel, Moshe Some decidable Diophantine problems: positive solution to a problem of Davis, Matijasevič and Robinson. **81a:10069**

Krjucjukas, V. Ju. A Diophantine representation of perfect numbers. (Russian. English summary) **81j:10087**

secondary classifications:

Adleman, Leonard See **Manders, Kenneth L.**, **(81c:68032)**

Denef, J. Diophantine sets over algebraic integer rings. II. **(81b:12031)**

Grunewald, Fritz J. (with **Segal, Daniel**) The solubility of certain decision problems in arithmetic and algebra. **(81b:10014)**

Gurari, Eltan M. (with **Ibarra, Oscar H.**) An NP-complete number-theoretic problem. **(81c:68034)**

(with **Ibarra, Oscar H.**) Simple counter machines and number-theoretic problems. **(81c:68086)**

Ibarra, Oscar H. See **Gurari, Eltan M.**, **(81c:68034)** and **Gurari, Eltan M.**, **(81c:68086)**

Manders, Kenneth L. (with **Adleman, Leonard**) NP-complete decision problems for binary quadratics. **(81c:68032)**

Matijasevič, Ju. V. Algorithmic unsolvability of exponential Diophantine equations with three unknowns. (Russian) **(81f:03055)**

Remeslennikov, V. N. An algorithmic problem for nilpotent groups and rings. (Russian) **(81g:03051)**

Rumely, R. S. Undecidability and definability for the theory of global fields. **(81m:03053)**

Ruohonen, Kello Hilbert's tenth problem. (Swedish. English summary) **(81m:10031)**

Segal, Daniel See **Grunewald, Fritz J.**, **(81b:10014)**

Semenov, A. L. Some extensions of the arithmetic of natural number addition. (Russian) **(81c:03009)**

10N10 Ultraproducts [See also **03C20**.]

10N15 Nonstandard arithmetic [See also **03H15**.]

secondary classifications:

Mills, George See **Paris, J. B.**, **(81j:03099)**

Paris, J. B. Note on an induction axiom. **(81c:03057)**

(with **Mills, George**) Closure properties of countable nonstandard integers. **(81j:03099)**

10N99 None of the above, but in this section

secondary classifications:

Marčenko, S. S. A basis with respect to superposition in the class of functions that are elementary in the sense of Kalmár. (Russian) **(81c:03039)**

12-XX ALGEBRAIC NUMBER THEORY, FIELD THEORY AND POLYNOMIALS

12-01 Elementary exposition, textbooks

Hasse, Helmut ★Number theory. **81c:12001a**

★Number theory. **81c:12001b**

Pankratova, V. G. ★Вопросы теории делимости в кольцах и полях алгебраических чисел. (Russian) [Questions of the theory of divisibility in rings and algebraic number fields] **81k:12001**

Stewart, Ian (with **Tall, David**) ★Algebraic number theory. **81g:12001**

Tall, David See **Stewart, Ian**, **81g:12001**

(Zimmer, Horst Günter) See **Hasse, Helmut**, **81c:12001a** and **Hasse, Helmut**, **81c:12001b**

secondary classifications:

Törner, Günter Angeordnete Körper. **(81j:12024)**

12-02 Advanced exposition (research surveys, monographs, etc.)

secondary classifications:

Sprindžuk, V. G. Achievements and problems of the theory of Diophantine approximations. (Russian) **(81j:10039)**

12-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Brauer, Richard ★Collected papers. Vol. I. **(81i:01017a)**

★Collected papers. Vol. III. **(81i:01017c)**

(Fong, Paul) See **Brauer, Richard**, **(81i:01017a)** and **Brauer, Richard**, **(81i:01017c)**

(Gauß, Carl Friedrich) See **Neumann, Olaf**, **(81c:01024)**

(Goldman, O.) See **Brauer, Richard**, **(81i:01017a)**

(Green, J. A.) See **Brauer, Richard**, **(81i:01017a)**

Jehne, Wolfram Die Entwicklung des Umkehrproblems der Galoisschen Theorie.

(81g:01017)

Makys, M. Metric and analytic number theory at Vilnius University. (Russian.

Lithuanian and English summaries) **(81k:10063)**

Neumann, Olaf Bemerkungen aus heutiger Sicht über Gauß' Beiträge zur Zahlentheorie.

Algebra und Funktionentheorie. **(81c:01024)**

Radović, Predrag Fermat's great theorem. (Serbo-Croatian) **(81m:10002)**

(Wong, Warren J.) See **Brauer, Richard**, **(81i:01017a)** and **Brauer, Richard**,

(81i:01017c)

Bibliography:

Brauer, Richard Dagobert See **Brauer, Richard**, **(81i:01017a)**

Biography:

Brauer, Richard Dagobert See **Brauer, Richard**, **(81i:01017a)**

12-04 Explicit machine computation and programs (not the theory of computation or programming)

Bougaut, B. Algorithme explicite pour la recherche du P.G.C.D. dans certains anneaux principaux d'entiers de corps de nombres. (English summary) **(81k:12002)**

Caviness, B. F. (with Epstein, H. I.) A note on the complexity of algebraic differentiation. **(81e:12001)**

Epstein, H. I. See **Caviness, B. F.**, **(81e:12001)**

Pohst, Michael (with Zassenhaus, Hans) On unit computation in real quadratic fields. **(81h:12001)**

Rabin, Michael O. Probabilistic algorithms in finite fields. **(81g:12002)**

Vasil'ev, Ju. P. Computer description of finite fields. **(81k:12001)**

Willett, Michael Arithmetic in a finite field. **(81k:12003)**

Zassenhaus, Hans On the van der Waerden criterion for the group of an equation. **(81h:12002)**

See also **Pohst, Michael**, **(81h:12001)**

secondary classifications:

Bitimbaev, T. S. A study in finding an effective algorithm for counting the number of classes of ideals of imaginary number fields and determining the values of the Legendre symbol. (Russian) **(81m:12011)**

Schnorr, C.-P. (with Van de Wiele, J. P.) On the additive complexity of polynomials. **(81k:68037)**

Valiant, L. G. Computing multivariate polynomials in parallel. **(81k:68038)**

Van de Wiele, J. P. See **Schnorr, C.-P.**, **(81k:68037)**

12-06 Proceedings, conferences, etc.

Number theory ★Séminaire de Théorie des Nombres 1978-1979. (French) [Seminar on number theory 1978-1979] **(81a:12001)**

Séminaire:

Théorie des Nombres ★Séminaire de Théorie des Nombres 1978-1979. (French) [Seminar on number theory 1978-1979] **(81a:12001)**

12Axx Algebraic number theory: global fields (For complex multiplication, see 10D25.)

12A05 Analogues in number fields of elementary number theory

Grotz, Wolfgang Mittelwert der Eulerschen φ -Funktion und des Quadrates der Dirichletschen Teilerfunktion in algebraischen Zahlkörpern. (English summary) **(81e:12002)**

Lenstra, Hendrik W., Jr. Euclidean number fields. II, III. **(81m:12001)**

(Van der Poorten, Alfred J.) See **Lenstra, Hendrik W., Jr.**, **(81m:12001)**

secondary classifications:

Kulpers, L. (with Shiu, Jau Shyong) On a criterion for uniform distribution of a sequence in the ring of Gaussian integers. **(81m:10070)**

Shiu, Jau Shyong See **Kulpers, L.**, **(81m:10070)**

12A10 Characterizations of algebraic numbers and algebraic functions

Carbanati, Dennis A. An algorithm for finding an algebraic number whose norm is a given rational number. **(81k:12004)**

Hadživanov, Nikolai G. Absolutely nonzero solutions of some algebraic congruences. (Russian) **(81g:12003)**

Kátai, I. (with Kovács, B.) Kanonische Zahlensysteme in der Theorie der quadratischen algebraischen Zahlen. **(81c:12002)**

Kovács, B. See **Kátai, I.**, **(81c:12002)**

Mendes France, Michel À propos de la suite de Morse. **(81f:12001)**

12A15 Special algebraic numbers (PV numbers, etc.)

Bertin, Marie-José Familles fermées de n -uples irréductibles. **(81a:12002)**

Ensembles dérivés des ensembles $\Sigma_{p,k}$ et de l'ensemble S des PV-nombres. (English summary) **(81e:12002)**

Cantor, David G. On an extension of the definition of transfinite diameter and some applications. **(81m:12002)**

Drobot, V. (with McDonald, Steven W.) Approximation properties of polynomials with bounded integer coefficients. **(81m:12003)**

Grandet-Hugot, Marthe Fonctions à caractéristique bornée et P.V. éléments. **(81c:12005)**

McDonald, Steven W. See **Drobot, V.**, **(81m:12003)**

Pathiaux, Martine Résultats de Boyd sur les nombres de Pisot-Salem. **(81i:12003)**

Wilker, Peter Die irreduziblen Zahlen des Bereichs $\mathbb{Z}[\sqrt{-5}]$. **(81g:12004)**

secondary classifications:

Boyd, David W. Some integer sequences related to Pisot sequences. **(81a:10068)**

Lust-Piquard, F. L'espace des fonctions presque-périodiques dont le spectre est contenu dans un ensemble compact dénombrable à la propriété de Schur. **(81m:43011)**

12A20 Polynomials (irreducibility, etc.)

Gay, David A. Normal binomials over algebraic number fields. **(81m:12004)**

Schinzel, A. Addendum and corrigendum to the paper: "Abelian binomials, power residues and exponential congruences" [Acta Arith. 32 (1977), no. 3, 245-274; MR 85 #2829]. **(81g:12005)**

secondary classifications:

Schnorr, C.-P. An extension of Strassen's degree bound. **(81b:68056)**

12A25 Quadratic fields

Cowles, Mary J. On the divisibility of the class number of imaginary quadratic fields. **(81m:12005)**

Ito, Hideji A reciprocity law in some relative quadratic extensions. **(81c:12004)**

Korčagina, V. I. The distribution of prime ideal numbers in a quadratic field. (Russian. Tajiki summary) **(81a:12003)**

Kutsuna, Masakazu On a criterion for the class number of a quadratic number field to be one. **(81m:12006)**

Williams, Kenneth S. The class number of $\mathbb{Q}(\sqrt{-p})$ modulo 4, for $p \equiv 3 \pmod{4}$ a prime. **(81c:12005)**

secondary classifications:

Bitimbaev, T. S. A study in finding an effective algorithm for counting the number of classes of ideals of imaginary number fields and determining the values of the Legendre symbol. (Russian) **(81m:12011)**

Kubokawa, Yoshihiro The genus field for composite of quadratic fields. **(81c:12016)**

Leonard, Philip A. (with Williams, Kenneth S.) The quadratic and quartic character of certain quadratic units. II. **(81b:12006)**
(with Williams, Kenneth S.) The quartic characters of certain quadratic units. **(81k:12011)**

Morton, Patrick On Rédei's theory of the Pell equation. **(81f:12005)**

Pankratova, V. G. ★Вопросы теории делимости в кольцах и полях алгебраических чисел. (Russian) [Questions of the theory of divisibility in rings and algebraic number fields] **(81k:12001)**

Rivoire, Paul Dernier théorème de Fermat et groupes de classes dans certains corps quadratiques imaginaires. **(81m:10026)**

Williams, Kenneth S. On Eisenstein's supplement to the law of cubic reciprocity. **(81f:10007)**

See also **Leonard, Philip A.**, **(81b:12006)** and **Leonard, Philip A.**, **(81k:12011)**

12A30 Cubic and quartic fields

Baily, Andrew Marc On the density of discriminants of quartic fields. **(81c:12006)**

Cohn, Harvey Quaternionic compositum genus. **(81a:12004)**

Edgar, Hugh M. (with Peterson, Brian) Some contributions to the theory of cyclic quartic extensions of the rationals. **(81m:12007)**

Egami, Shigeki Euclid's algorithm in pure quartic fields. **(81c:12007)**

Huard, James G. Cyclic cubic fields that contain an integer of given index. **(81c:12003)**

Iimura, Kiyosaki On 3-class groups of non-Galois cubic fields. **(81b:12001)**

Peterson, Brian See **Edgar, Hugh M.**, **(81m:12007)**

Setzer, C. Bennett The determination of all imaginary, quartic, abelian number fields with class number 1. **(81k:12005)**

secondary classifications:

Cormack, G. V. See **Williams, H. C.**; et al., **(81d:12003)**

Girstmair, Kurt Elementare Berechnung von kubischen Diskriminanten. **(81d:12004)**

Gras, Marie-Nicole Classes et unités des extensions cycliques réelles de degré 4 de \mathbb{Q} . (English summary) **(81f:12003)**

Levesque, Claude A class of fundamental units and some classes of Jacobi-Perron algorithms in pure cubic fields. **(81b:12007)**

Parry, Charles J. A genus theory for quartic fields. **(81j:12002)**

Seah, E. See **Williams, H. C.**; et al., **(81d:12003)**

Thomas, Emery Fundamental units for orders in certain cubic number fields. (81b:12009)

Williams, H. C. (with Cormack, G. V.; Seah, E.) Calculation of the regulator of a pure cubic field. (81d:12003)

12A35 Abelian and metabelian extensions (including cyclotomic, Kummer, cyclic)

Babačev, V. A. On the boundedness of Iwasawa's μ -invariant. (Russian) 81d:12001

Bayer, Pilar The irregularity index of prime numbers. (Spanish) 81b:12003

Ferrero, Bruce (with Washington, Lawrence C.) The Iwasawa invariant μ_p vanishes for abelian number fields. 81a:12005

The cyclotomic Z_p -extension of imaginary quadratic fields. 81g:12006

Gillard, Roland Unités elliptiques et unités cyclotomiques. 81k:12007

Kendzior, S. Calculation of the number of some absolutely abelian fields of the type (l, l, q) . (Russian) 81f:12002

Kubert, Daniel S. (with Lang, Serge) Modular units inside cyclotomic units. (French summary) 81k:12006

Lang, Serge ★Cyclotomic fields. II. 81i:12004

See also Kubert, Daniel S., 81k:12006

Lenstra, Hendrik W., Jr. Euclidean number fields. I. 81b:12002

Nakazato, Hajime A remark on Ribet's theorem. 81g:12007

Oesterlé, Joseph Travaux de Ferrero et Washington sur le nombre de classes d'idéaux des corps cyclotomiques. 81i:12005

Schmidt, Claus-G. Gauss sums and the classical Γ -function. 81k:12008

Über die Führer von Gaußschen Summen als Größencharaktere. (English summary) 81k:12009

Die Relationen faktorguppen von Stickelberger-Elementen und Kreiszahlen. 81d:12002

Walter, Colin D. The ambiguous class group and the genus group of certain nonnormal extensions. 81c:12008

Washington, Lawrence C. Units of irregular cyclotomic fields. 81a:12006

See also Ferrero, Bruce, 81a:12005

secondary classifications:

Candiotti, Alan See Kramer, Kenneth, (81i:12011)

Costes, John The arithmetic of elliptic curves with complex multiplication. (81c:14011)

(de Fermat, Pierre) See Ribenboim, Paulo, (81f:10023)

Garbanati, Dennis A. An algorithm for finding an algebraic number whose norm is a given rational number. (81k:12004)

Gillard, Roland Sur le groupe des classes des extensions abéliennes réelles. (81c:12019)

Unités cyclotomiques, unités semi-locales et Z_p -extensions. II. (English summary) (81c:12005b)

Gras, Georges Sur la construction des fonctions L p -adiques abéliennes. (81k:12016)

Gras, Marie-Nicole Classes et unités des extensions cycliques réelles de degré 4 de Q . (English summary) (81k:12003)

Kramer, Kenneth (with Candiotti, Alan) On K_2 and Z_p extensions of number fields. (81i:12011)

Ribenboim, Paulo ★13 lectures on Fermat's last theorem. (81f:10023)

Fermat's last theorem: recent developments. (81m:10025)

Ribet, Kenneth A. ★Fonctions L p -adiques et théorie d'Iwasawa. (French) [p -adic L -functions and Iwasawa theory] (81c:12022)

Kummer theory on extensions of abelian varieties by tori. (81g:14019)

(Satzg, Philippe) See Ribet, Kenneth A., (81c:12022)

Schmidt, Claus-G. Größencharaktere und Relativklassenzahl abelscher Zahlkörper. (English summary) (81f:12006)

Skula, Ladislav Index of irregularity of a prime. (81c:12014)

Takeuchi, Teruo Notes on the class field towers of cyclic fields of degree l . (81d:12008)

Ullom, Stephen V. Upper bounds for p -divisibility of sets of Bernoulli numbers. (81h:10019)

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de Fermat, Pierre See Ribenboim, Paulo, (81f:10023)

12A40 Other number fields

Nakamura, Ken An explicit formula for the fundamental units of a real pure sextic number field and its Galois closure. 81c:12004

secondary classifications:

Cohn, Harvey Quaternionic compositum genus. (81a:12004)

Frel, Günther (with Levesque, Claude) Independent systems of units in certain algebraic number fields. (81b:12003)

Gillard, Roland (with Robert, Gilles) Groupes d'unités elliptiques. (English summary) (81c:12009)

Levesque, Claude See Frel, Günther, (81b:12003)

Robert, Gilles See Gillard, Roland, (81c:12009)

12A45 Units and factorization

Avanesov, E. T. On the fundamental units of algebraic fields of degree n . (Russian) 81a:12007

Bartsch, Hans-Jochen Über Normen algebraischer Zahlen. 81k:12010

Brannett, Horst Vektoren minimaler Länge in Gittern mit einem Automorphismus. (English summary) 81a:12008

Cormack, G. V. See Williams, H. C.; et al., 81d:12003

Emala, Veikko On the representations of units by cyclotomic polynomials. 81j:12001

Frel, Günther (with Levesque, Claude) Independent systems of units in certain algebraic number fields. 81b:12003

Gillard, Roland Unités cyclotomiques, unités semi-locales et Z_p . (English summary) 81c:12005a

Unités cyclotomiques, unités semi-locales et Z_p -extensions. II. (English summary) 81c:12005b

(with Robert, Gilles) Groupes d'unités elliptiques. (English summary) 81c:12009

Unités elliptiques et unités de Minkowski. 81m:12008

Kubert, Daniel S. The universal ordinary distribution. (French summary) 81b:12004

Lenstra, Hendrik W., Jr. Euclidean ideal classes. 81b:12005

Leonard, Philip A. (with Williams, Kenneth S.) The quadratic and quartic character of certain quadratic units. II. 81b:12006

(with Williams, Kenneth S.) The quartic characters of certain quadratic units. 81k:12011

Levesque, Claude A class of fundamental units and some classes of Jacobi-Perron algorithms in pure cubic fields. 81b:12007

See also Frel, Günther, 81b:12003

Nakamura, Noboru On units of Galois extensions over Q . 81m:12009

Nakamata, Ken On the group of units of a non-Galois quartic or sextic number field. 81h:12004

Narkiewicz, Władysław Finite abelian groups and factorization problems. 81i:12006

Robert, Gilles Caractères exceptionnels. 81c:12010

See also Gillard, Roland, 81c:12009

Seah, E. See Williams, H. C.; et al., 81d:12003

Setzer, C. Bennett Units over totally real $C_2 \times C_2$ fields. 81b:12005

Steiner, Ray On the units in algebraic number fields. 81b:12008

Sunley, Judith S. Prime discriminants in real quadratic fields of narrow class number one. 81c:12011

Thomas, Emery Fundamental units for orders in certain cubic number fields. 81b:12009

Williams, H. C. (with Cormack, G. V.; Seah, E.) Calculation of the regulator of a pure cubic field. 81d:12003

Williams, Kenneth S. On the evaluation of $(e_{q,p}/p)$. 81m:12010

See also Leonard, Philip A., 81b:12006 and Leonard, Philip A., 81k:12011

secondary classifications:

Bernstein, Leon Periodic algorithms and their application. (81a:10013)

Buell, Duncan A. (with Williams, Kenneth S.) An octic reciprocity law of Scholz type. (81a:10006)

Cusick, T. W. Best Diophantine approximation for ternary linear forms. (81k:10048)

Gillard, Roland Unités elliptiques et unités cyclotomiques. (81k:12007)

Gras, Marie-Nicole Classes et unités des extensions cycliques réelles de degré 4 de Q . (English summary) (81f:12003)

Kubert, Daniel S. The $Z/2Z$ cohomology of the universal ordinary distribution. (French summary) (81a:20062)

(with Lang, Serge) Modular units inside cyclotomic units. (French summary) (81k:12006)

Lang, Serge See Kubert, Daniel S., (81k:12006)

Lenstra, Hendrik W., Jr. Euclidean number fields. II, III. (81m:12001)

Moser, Nicole Unités et nombre de classes d'une extension galoisienne diédrale de Q . (81k:12009)

Nakamura, Ken An explicit formula for the fundamental units of a real pure sextic number field and its Galois closure. (81c:12004)

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Tausky, Olga More on norms from algebraic number fields, commutators and matrices which transform a rational matrix into its transpose. (81k:15023)

(Van der Poorten, Alfred J.) See Lenstra, Hendrik W., Jr., (81m:12001)

Washington, Lawrence C. Units of irregular cyclotomic fields. (81a:12006)

Williams, Kenneth S. See Buell, Duncan A., (81a:10006)

Zassenhaus, Hans See Pohst, Michael, (81h:12001)

12A50 Class number, discriminant

Bitimbeev, T. S. A study in finding an effective algorithm for counting the number of classes of ideals of imaginary number fields and determining the values of the Legendre symbol. (Russian) 81m:12011

Bölling, Reinhard Bemerkungen über Klassenzahlen und Summen von Jacobi-Symbolen. 81g:12008

Borel, Armand Errata: "Cohomologie de SL_n et valeurs de fonctions zêta aux points entiers" [Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4) 4 (1977), no. 4, 613-636; MR 58 #22016]. 81k:12012

Castela, Corine Nombre de classes d'idéaux d'une extension diédrale de degré 8 de Q . 81c:12006

Glismair, Kurt Elementare Berechnung von kubischen Diskriminanten. 81d:12004

Gras, Marie-Nicole Classes et unités des extensions cycliques réelles de degré 4 de Q . (English summary) 81f:12003

Halter-Koch, Franz Zur Geschlechtertheorie algebraischer Zahlkörper. 81c:12012

Hoffstein, Jeffrey Some results related to minimal discriminants. 81d:12005

Kataoka, Toshitaka On the integer ring of the compositum of algebraic number fields. 81c:12007

Martinet, Jacques Petits discriminants. (English summary) 81h:12006

Masley, John Myron Where are number fields with small class number? 81f:12004

Morton, Patrick On Rédei's theory of the Pell equation. 81f:12005

Parry, Charles J. A genus theory for quartic fields. 81f:12002

Poitou, Georges Sur les petits discriminants. 81i:12007

Satzg, Philippe Divisibilité du nombre de classes de certains corps cycliques. 81c:12013

Corps résolubles et divisibilité de nombres de classes d'idéaux. 81j:12003

Schmidt, Claus-G. Größencharaktere und Relativklassenzahl abelscher Zahlkörper. (English summary) 81f:12006

Skula, Ladislav Index of irregularity of a prime. 81c:12014

Takahashi, Shōichi Über die Relativklassenzahl der algebraischen Funktionkörper. 81c:12015

secondary classifications:

- Bally, Andrew Marc On the density of discriminants of quartic fields. (81c:12006)
 Cormack, G. V. See Williams, H. C.; et al., (81d:12003)
 Cowles, Mary J. On the divisibility of the class number of imaginary quadratic fields. (81m:12005)
 Earnest, A. G. (with Estes, Dennis R.) Class groups in the genus and spinor genus of binary quadratic lattices. (81i:10025)
 Edgar, Hugh M. A number field without any integral basis. (81d:12006)
 Estes, Dennis R. See Earnest, A. G., (81i:10025)
 Ferrero, Bruce (with Washington, Lawrence C.) The Iwasawa invariant μ_p vanishes for abelian number fields. (81a:12005)
 Kutsus, Masakazu On a criterion for the class number of a quadratic number field to be one. (81m:12006)
 Meyer, Werner (with Perlis, Robert) On the genus of norm forms. (81f:10031)
 Nakazato, Hajime A remark on Ribet's theorem. (81g:12007)
 Perlis, Robert See Meyer, Werner, (81f:10031)
 Seah, E. See Williams, H. C.; et al., (81d:12003)
 Setzer, C. Bennett The determination of all imaginary, quartic, abelian number fields with class number 1. (81k:12005)
 Skula, Ladislav On certain ideals of the group ring $\mathbb{Z}[G]$. (81f:12007)
 Wagstaff, Samuel S., Jr. p -divisibility of certain sets of Bernoulli numbers. (81i:10018)
 Walter, Colin D. The ambiguous class group and the genus group of certain nonnormal extensions. (81c:12008)
 Washington, Lawrence C. See Ferrero, Bruce, (81a:12005)
 Williams, H. C. (with Cormack, G. V.; Seah, E.) Calculation of the regulator of a pure cubic field. (81d:12003)
 Williams, Kenneth S. The class number of $Q(\sqrt{-p})$ modulo 4, for $p \equiv 3 \pmod{4}$ a prime. (81c:12005)

12A55 Galois theory

- Bushnell, Colin J. Norm distribution in Galois orbits. 81b:12007
 Cassou-Nogués, Philippe Structure galoisienne des anneaux d'entiers. 81k:12014
 Cvetkov, V. M. On the Galois group of the maximal l -extension of the rational number field with prescribed ramification. (Russian. English summary) 81e:12008
 Edgar, Hugh M. A number field without any integral basis. 81d:12006
 Faddeev, D. K. An interpretation of the supplementary condition in the theory of imbedding of fields with an abelian kernel. (Russian) 81j:12004
 Geyer, Wolf-Dieter The automorphism group of the field of all algebraic numbers. 81i:12008
 Imura, Kiyonori Dihedral extensions of Q of degree $2l$ which contain non-Galois extensions with class number not divisible by l . 81h:12008
 Krjckov, A. F. Finite Galois modules. (Russian) 81a:12009
 Kubokawa, Yoshihiro The genus field for composite of quadratic fields. 81c:12016
 Moser, Nicole Unités et nombre de classes d'une extension galoisienne diédrale de Q . 81h:12009
 Neukirch, Jürgen On solvable number fields. 81e:12009
 Ohta, Kichiro On the abelian extensions over some Galois number fields. 81c:12017
 Opolka, Hans Zur Auflösung zahlentheoretischer Knoten. 81m:12012
 Perrin-Riou, Bernadette \star Plongement d'une extension diédrale dans une extension diédrale ou quaternionienne. (French) [Embedding of a dihedral extension in a dihedral or quaternionic extension] 81b:12010
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 Sonn, Jack $SL(2, 5)$ and Frobenius Galois groups over Q . 81g:12009
 Taylor, Martin J. Galois module structure of rings of integers in Kummer extensions. 81e:12010
 Uchida, Kōji Isomorphisms of Galois groups of solvably closed Galois extensions. 81a:12010

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- Cassou-Nogués, Philippe Quelques remarques sur le cas sauvage. (81g:12010)
 Katsurada, Hidenori On unramified $SL_2(F_q)$ extensions of an algebraic function field. (81g:12014)
 LaMacchia, Samuel E. Polynomials with Galois group $PSL(2, 7)$. (81k:12024)
 Meyer, Werner (with Perlis, Robert) On the genus of norm forms. (81f:10031)
 Perlis, Robert See Meyer, Werner, (81f:10031)
 Radojević, Predrag Fermat's great theorem. (Serbo-Croatian) (81m:10002)
 Taylor, Martin J. Adams operations, local root numbers, and the Galois module structure of rings of integers. (81j:12008)
 Uchida, Kōji Separably Hilbertian fields. (81j:12019)

12A57 Integral representations related to algebraic numbers [See also 20C10.]

- Bartels, Hans-Jochen (with Kitaoka, Yoshiyuki) Endliche arithmetische Untergruppen der GL_n . 81m:12013a
 Cassou-Nogués, Philippe Quelques remarques sur le cas sauvage. 81g:12010
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 Endō, Shizuo (with Hironaka, Yumiko) Finite groups with trivial class groups. 81c:12018
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 Kataoka, Toshihisa Some type of ideals of group rings and its applications to algebraic number fields. 81e:12011
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- Skula, Ladislav On certain ideals of the group ring $\mathbb{Z}[G]$. 81f:12007
 Swan, Richard G. Strong approximation and locally free modules. 81m:12017
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 Wilson, Stephen M. J. A counterexample in the Galois module structure of wild extensions of the rational field. 81m:12015

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- Allen, Paul J. (with Hobby, C.) A characterization of units in $\mathbb{Z}[A_4]$. (81k:20012)
 Bhandari, S. K. Ideal matrices for Dedekind domains. (81f:15018)
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 Magura, Bruce A. Whitehead groups of some hyperbolic groups. (81g:20006)
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 Oliver, Robert SK_1 for finite groups rings. I. (81f:18031)
 Opolka, Hans The twisted group algebra of a finite nilpotent group over a number field. (81j:16015)
 Irreducible projective representations of finite nilpotent groups over number fields. (81d:20012)
 Die verschränkte Gruppenalgebra einer endlichen Gruppe über einem Zahlkörper. (81i:20010)
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- Amano, Kazuo On the Hasse norm principle for a separable extension. 81g:12011
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- (Bass, H.) See Roberts, Leslie G., (81a:18008)
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 (de Fermat, Pierre) See Ribenboim, Paulo, (81f:10023)
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 Ito, Hideji A reciprocity law in some relative quadratic extensions. (81c:12004)
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Report on p -adic L -functions over totally real fields. 81f:12009

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Jarden, Moshe An analogue of Čebotarev density theorem for fields of finite corank. 81d:12010

Lagarias, J. C. (with Montgomery, H. L.; Odlyzko, A. M.) A bound for the least prime ideal in the Chebotarev density theorem. 81b:12013

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Odol, R. W. K. The distribution of integral and prime-integral values of systems of full-norm polynomials and affine-decomposable polynomials. 81e:12023

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12A80 Arithmetic of algebras [See also 12B35, 16A18, 16A39.]

Bushnell, Colin J. (with Reiner, Irving) Solomon's conjectures and the local functional equation for zeta functions of orders. 81i:12019

Gordon, Basil (with Schacher, Murray) The admissibility of A_5 . 81b:12014

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Margulis, G. A. Multiplicative groups of a quaternion algebra over a global field. (Russian) 81k:12018

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secondary classifications:

Jacquet, Hervé Principal L -functions of the linear group. (81f:22029)

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Haris, S. J. Number theoretical developments arising from the Siegel formula. 81a:12015

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Goss, David v -adic zeta functions, L -series and measures for function fields. 81e:12024

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- Shintani, Takuro On special values of zeta functions of totally real algebraic number fields. 81c:12016

secondary classifications:

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- Laohakosol, Wichian On Newton's method in complete fields. 81j:12009

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- Perrin-Riou, Bernadette Plongement d'extensions dédriales. (81h:12010)

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- Jarden, Moshe (with Ritter, Jürgen) Normal automorphisms of absolute Galois groups of p -adic fields. 81j:12010
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 Wintenberger, Jean-Pierre Extensions abéliennes et groupes d'automorphismes de corps locaux. (English summary) 81c:12026

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- Miyata, Yoshimasa On the module structure of a p -extension over a p -adic number field. 81b:12015

12B20 Galois cohomology [See also 12Gxx, 16A16.]

- Coleman, Robert F. Division values in local fields. 81j:12017
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- Janusz, Gerald J. Crossed product orders and the Schur index. (81a:16007)
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- Jančevskii, V. I. Reduced unitary K -theory. Applications to algebraic groups. (Russian) 81g:12020

secondary classifications:

- Kato, Kazuya A generalization of local class field theory by using K -groups. I. (81b:12016)
 Snaith, Victor P. On the localisation sequence in K -theory. (81f:18032)

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 Kolyvagin, V. A. Formal groups and the norm residue symbol. (Russian) 81b:12018
 Sen, Shankar On explicit reciprocity laws. 81a:12018
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- Andrićuk, V. I. Distinguishing the class of general local fields with residue field of characteristic zero for which the Tate-Safarevič pairing in elliptic curves is nondegenerate from the left. (Russian. English summary) (81a:14020a)
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 Serre, Jean-Pierre Groupes algébriques associés aux modules de Hodge-Tate. (81j:14027)

12B27 Langlands-Weil conjectures, nonabelian class field theory [See also 10Dxx, 22E50.]

- Henniart, Guy Représentations du groupe de Weil d'un corps local: conducteurs et facteurs ϵ . (English summary) 81j:12011
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 Kutzko, Philip The Langlands conjecture for GL_2 of a local field. 81c:12027
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12B30 Zeta and L -functions [See also 10H08, 10H10.]

- Cassou-Nogues, Pierrette Analogues p -adiques des fonctions Γ -multiples. 81c:12019
 Katz, Nicholas M. p -adic L -functions, Serre-Tate local moduli, and ratios of solutions of differential equations. 81d:12012
 Lichtenbaum, Stephen On p -adic L -functions associated to elliptic curves. 81j:12013
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- Gras, Georges Sur la construction des fonctions L p -adiques abéliennes. (81k:12016)
 Härkönen, Kari On the Diophantine equation $x^4 + y^4 = cz^4$ in the third case. (81m:10023)
 Ha Zui Hoi A p -adic L -function associated with an elliptic curve. (Russian) (81k:10046)
 Osipov, Ju. V. p -adic Fourier transform. (Russian) (81b:12021)
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 Ribet, Kenneth A. Report on p -adic L -functions over totally real fields. (81f:12009)
 Vilić, M. M. A non-Archimedean analogue of perturbation theory. (Russian) (81d:12015)

12B35 Arithmetic of algebras [See also 12A80, 16A18, 16A39.]

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- Bushnell, Colin J. (with Reiner, Irving) Zeta functions of arithmetic orders and Solomon's conjectures. (81k:12019)
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- Bezivin, Jean-Paul Systèmes d'équations analytiques (d'après G. I. Gusev). 81k:12021
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- Baldassarri, F. (with Dwork, B.) On second order linear differential equations with algebraic solutions. (81d:34002)
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 Gos, David The algebraist's upper half-plane. (81g:10042)
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 Wade, William R. Sets of uniqueness for the group of integers of a p -series field. (81d:43008)

12B45 Other nonanalytic theory

12B99 None of the above, but in this section

Taylor, Martin J. Local Gauss sums. 81g:12021

secondary classifications:

Terjanian, Guy Formes p -adiques anisotropes. (81i:10028)

12Cxx Finite fields, and finite commutative rings (number-theoretic aspects)

12C05 Polynomials

- Agou, S. Irréductibilité des polynômes $f(\sum_{i=0}^n a_i X^i)$ sur un corps fini F_p . 81h:12012
 Antonjan, A. M. See Varlamov, R. R., 81e:12021
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 Faradžev, R. G. Stability of finite dynamical systems. (Russian. Azerbaijani and English summaries) 81h:12013
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 West, Karen I. See Beard, Jacob T. B., Jr.; et al., 81i:12022

secondary classifications:

- Camion, Paul Un algorithme de construction des idempotents primitifs d'idéaux d'algèbres sur F_p . (English summary) (81j:94019)
 Mihailjuk, M. V. The complexity of calculation of elementary symmetric functions in finite fields. (Russian) (81e:68051)
 Muller, Gary L. Local permutation polynomials over Z_p . (81h:05006)
 Rabin, Michael O. Probabilistic algorithms in finite fields. (81g:12002)
 Schar, Howard The F_p span of the incidence matrix of a finite projective plane. (81e:94020)

12C10 Linear sequences

12C15 Arithmetic

- Mignotte, Maurice Calcul des racines d -ièmes dans un corps fini. (English summary) 81b:12022

secondary classifications:

- Beard, Jacob T. B., Jr. (with Bullock, Alice T.; Harbin, Mickie Sue) Infinitely many perfect and unitary perfect polynomials. (Italian summary) (81c:12032)
 Bullock, Alice T. See Beard, Jacob T. B., Jr.; et al., (81c:12032)
 Harbin, Mickie Sue See Beard, Jacob T. B., Jr.; et al., (81c:12032)
 Miller, R. L. See Reed, I. S.; et al., (81b:10002)
 Reed, I. S. (with Truong, T. K.; Miller, R. L.) A new algorithm for computing primitive

elements in the field of Gaussian complex integers modulo a Mersenne prime. (81b:10002)

Truong, T. K. See Reed, I. S.; et al., (81b:10002)

12C20 Cyclotomy

Chieh, Chung Analysis of cyclotomic sets. 81g:12022

L'vov, I. V. An application of the Chevalley-Waring theorem in the theory of rings. (Russian) 81i:12023

secondary classifications:

Evans, Ronald J. The 2th power character of 2. (81f:10006)

12C25 Exponential sums

Fulton, John D. Gauss sums and solutions to simultaneous equations over $GF(2^n)$. 81c:12033

Sperber, Steven I. On the L -functions associated with certain exponential sums. 81m:12022

secondary classifications:

Kerber, Adalbert (with Wagner, Bernd) Gleichungen in endlichen Gruppen. (81k:20015)
 Wagner, Bernd See Kerber, Adalbert, (81k:20015)

12C30 Structure theory

12C99 None of the above, but in this section

Dubois, Eric (with Venetsanopoulos, Anastasios N.) The generalized discrete Fourier transform in rings of algebraic integers. 81f:12013
 Venetsanopoulos, Anastasios N. See Dubois, Eric, 81f:12013

secondary classifications:

Dorninger, Dietmar (with Nöbauer, W.) Local polynomial functions on lattices and universal algebras. (81f:06012)
 Geijssels, J. M. ★Transcendence in fields of positive characteristic. (81e:10030)
 Nöbauer, W. See Dorninger, Dietmar, (81f:06012)

12Dxx Real and complex fields

12D05 Polynomials: factorization

- Nakazawa, Teiji (with Tsuda, Takeo) Interrelation between two problems. 81h:12014
 Rubel, Lee A. (with Schinzel, A.; Tverberg, Helge) On difference polynomials and hereditarily irreducible polynomials. 81i:12024
 Schinzel, A. See Rubel, Lee A.; et al., 81i:12024
 Tsuda, Takeo See Nakazawa, Teiji, 81h:12014
 Tverberg, Helge See Rubel, Lee A.; et al., 81i:12024

12D10 Polynomials: location of zeros (algebraic theorems) [For the analytic theory, see 26C10, 30C15.]

- Alam, Mahfooz See Zaheer, Neyamat, 81f:12014
 Bickart, T. A. (with Jury, E. I.) Real polynomials: a test for nonglobal nonnegativity and nonglobal positivity. 81k:12023
 Bose, N. K. Test for polynomial zeros on a polydisc and consequences. 81b:12023
 Jury, E. I. See Bickart, T. A., 81k:12023
 Millett, T. (with Tang, I.) Using inners to determine multiple roots of polynomials. 81c:12034
 Tang, I. See Millett, T., 81c:12034
 Zaheer, Neyamat (with Alam, Mahfooz) Zeros of polar-composite polynomials in algebraically closed fields. 81f:12014

secondary classifications:

- Barnett, Stephen (with Jury, E. I.) Inners and Schur complement. (81a:15009)
 Grosswald, Emil Recent applications of some old work of Laguerre. (81e:30013)
 Jury, E. I. See Barnett, Stephen, (81a:15009)
 (Laguerre, Edmond) See Grosswald, Emil, (81e:30013)

12D15 Formally real fields

- Becker, Eberhard Partial orders on a field and valuation rings. 81i:12025
 Berman, Lawrence Pythagorean fields and the Kaplansky radical. 81f:12015
 Craven, Thomas C. Intersections of real closed fields. 81i:12026
 Fein, Burton (with Schacher, Murray; Wadsworth, Adrian R.) Division rings and the square root of -1 . 81j:12015
 Schacher, Murray See Fein, Burton; et al., 81j:12015
 Schilling, Heinz-Werner Über die Erzeugendenzahl invertierbarer Ideale in Prüferingen. 81j:12016
 Wadsworth, Adrian R. See Fein, Burton; et al., 81j:12015

secondary classifications:

- Choi, Man Duen (with Lam, Tsit Yuen; Reznick, Bruce; Rosenberg, Alex) Sums of squares in some integral domains. (81h:10028)
 Colliot-Thélène, Jean-Louis Formes quadratiques sur les anneaux semi-locaux réguliers. (81a:10029)

Dai, Zong Duo (with Lam, Tsit Yuen; Peng, C. K.) Levels in algebra and topology. (81j:10072)

Dickmann, Maximo Alejandro Sur les anneaux de polynômes à coefficients dans un anneau réel clos. (English summary) (81e:03032)

Halter-Koch, Franz Körper, über denen alle algebraischen Erweiterungen der Kummer'schen Theorie genügen. (81h:12027)

Knebusch, M. Signaturen, reelle Stellen und reduzierte quadratische Formen. (81k:10031)

Lam, Tsit Yuen See Choi, Man Duen; et al., (81h:10028) and Dai, Zong Duo; et al., (81j:10072)

Marshall, Murray The Witt ring of a space of orderings. (81b:10012)

Peng, C. K. See Dai, Zong Duo; et al., (81j:10072)

Reznick, Bruce See Choi, Man Duen; et al., (81h:10028)

Rosenberg, Alex See Choi, Man Duen; et al., (81h:10028)

Scharian, Rudolf On the Pythagoras number of orders in totally real number fields. (81g:10036)

12D99 None of the above, but in this section

Anderson, Brian D. O. Comments on: "On the number of roots of an algebraic equation contained between given limits" [Internat. J. Control 26 (1977), no. 2, 183-195; MR 58 #15949] by C. Hermite. 81h:12015

Filippenko, Ivan See Marcus, Marvin, 81e:12022

(Hermite, C.) See Anderson, Brian D. O., 81h:12015

Marcus, Marvin (with Filippenko, Ivan) Invariance of the nonvanishing specializations of polynomials. 81e:12022

Schmüdgen, Konrad An example of a positive polynomial which is not a sum of squares of polynomials. A positive, but not strongly positive functional. 81b:12024

Sekulski, Radojko M. The method of Prešić for factorization of polynomials. (Macedonian. French summary) 81h:12016

Stengle, Gilbert Integral solution of Hilbert's seventeenth problem. 81e:12035

secondary classifications:

Harnos, Za. Divisors of polynomials with positive coefficients. (81j:26014)

12Exx General field theory

12E05 Polynomials (irreducibility, etc.)

LaMacchia, Samuel E. Polynomials with Galois group $PSL(2, 7)$. 81k:12024

Sprindžuk, V. G. Hilbert's irreducibility theorem and rational points on algebraic curves. (Russian) 81b:12025

secondary classifications:

Cerlienco, L. (with Piras, F.) Linear recurrence sequences and division of polynomials. (Italian. English summary) (81j:13021)

Desimirova, L. K. Some theorems on the irreducibility of integral polynomials. (Russian) (81j:10072)

van den Dries, Lou Algorithms and bounds for polynomial rings. (81f:03045)

Piras, F. See Cerlienco, L., (81j:13021)

Sprindžuk, V. G. Reducibility of polynomials and rational points on algebraic curves. (Russian) (81m:14020)

Uchida, Kōji Separably Hilbertian fields. (81j:12019)

12E10 Special polynomials

secondary classifications:

Chabert, Jean-Luc Polynômes à valeurs entières ainsi que leurs dérivées. (81d:13006)

Dunn, K. B. (with Lidl, Rudolf) Multidimensional generalizations of the Chebyshev polynomials. I, II. (81f:33010)

Gay, David A. Normal binomials over algebraic number fields. (81m:12004)

Lidl, Rudolf See Dunn, K. B., (81f:33010)

Rubel, Lee A. (with Schinzel, A.; Tverberg, Helge) On difference polynomials and hereditarily irreducible polynomials. (81i:12024)

Schinzel, A. See Rubel, Lee A.; et al., (81i:12024)

Tverberg, Helge See Rubel, Lee A.; et al., (81i:12024)

Zassenhaus, Hans On the van der Waerden criterion for the group of an equation. (81h:12002)

12E12 Equations

secondary classifications:

Fulton, John D. Gauss sums and solutions to simultaneous equations over $GF(2^n)$. (81e:12033)

12E15 Skew fields, division rings [See also 12A80, 12B35, 16A39.]

Cauchon, Gérard Coeur de $K[X, \sigma, \delta]$ et questions d'algébricité dans $K(X, \sigma, \delta)$. 81m:12023

Cohn, P. M. (with Mahdavi-Hezavehi, M.) Extensions of valuations on skew fields. 81m:12024

Delepeleire, Jean-François Le symbole local $[a, b]_{\text{BR}}$ comme p -symbole universel. (English summary) 81j:12017

Fein, Burton (with Schacher, Murray) Brauer groups of fields. 81k:12025

Jančevskii, V. I. See Platonov, V. P., 81e:12023

Kist, Günter (with Kroll, Hans-Joachim; Sörensen, Kay) Beispiel eines Körpers, der keinen Antiautomorphismus zulässt. 81a:12021

Kroll, Hans-Joachim See Kist, Günter; et al., 81a:12021

Lorenz, Falko (with Opolka, Hans) Einfache Algebren und projektive Darstellungen über Zahlkörpern. 81m:12025

Mahdavi-Hezavehi, M. See Cohn, P. M., 81m:12024

Opolka, Hans See Lorenz, Falko, 81m:12025

Platonov, V. P. (with Jančevskii, V. I.) SK_1 for division rings of noncommutative rational functions. (Russian) 81e:12023

Algebraic groups and reduced K -theory. 81h:12017

Saltman, David J. Norm polynomials and algebras. 81h:12018

Schacher, Murray See Fein, Burton, 81k:12025

Sörensen, Kay See Kist, Günter; et al., 81a:12021

secondary classifications:

Beck, Bernard Sur les équations polynomiales dans les quaternions. (81m:16020)

Brauer, Richard Algebra der hyperkomplexen Zahlensysteme (Algebren). (81m:16001)

Cohn, P. M. Problems. (81m:16021)

The normal basis theorem for skew field extensions. (81h:16061)

Fein, Burton (with Schacher, Murray) Brauer groups and character groups of function fields. (81e:12036)

Jančevskii, V. I. The inverse problem of reduced K -theory. (Russian) (81m:16028)

Reduced Whitehead unitary groups of skew-fields of noncommutative rational functions. (Russian) (81m:16029)

Reduced unitary Whitehead groups and noncommutative rational functions. (Russian. English summary) (81m:16030)

Macintyre, Angus Combinatorial problems for skew fields. I. Analogue of Britton's lemma, and results of Adjan-Rabin type. (81h:03092)

Schacher, Murray See Fein, Burton, (81k:12036)

Tignol, Jean-Pierre Les corps à involution de dimension finie sur leur centre. (81k:16014)

12E99 None of the above, but in this section

12Fxx Field extensions

12F05 Algebraic extensions

Bărcănescu, Ș. (with Brezuleanu, Al.) Formal power series algebraically independent over polynomials. 81j:12018

Brezuleanu, Al. See Bărcănescu, Ș., 81j:12018

Guralnick, Robert M. (with Miller, Michael D.) Maximal subfields of algebraically closed fields. 81j:12023

May, Warren Multiplicative groups under field extension. 81h:12019

Miller, Michael D. See Guralnick, Robert M., 81j:12023

12F10 Separable extensions, Galois theory

Halter-Koch, Franz Körper, über denen alle algebraischen Erweiterungen der Kummer'schen Theorie genügen. 81h:12027

Uchida, Kōji Separably Hilbertian fields. 81j:12019

Vélez, William Yslas On normal binomials. 81k:12026

Waterhouse, William C. The normal basis theorem. 81g:12024

secondary classifications:

Ribet, Kenneth A. Kummer theory on extensions of abelian varieties by tori. (81j:14019)

Saltman, David J. Generic Galois extensions. (81i:13001)

12F15 Inseparable extensions, derivations

Deveney, James K. (with Mordeson, John N.) The order of inseparability of fields. 81b:12026

(with Mordeson, John N.) Splitting and modularly perfect fields. 81b:12027

Mordeson, John N. See Deveney, James K., 81b:12026 and Deveney, James K., 81b:12027

Pauer, Franz Invariante Zwischenkörper endlicher Körpererweiterungen. (English summary) 81a:12022

secondary classifications:

Hoobler, Raymond T. A cohomological interpretation of Brauer groups of rings. (81j:13003)

12F20 Transcendental extensions

secondary classifications:

Fein, Burton (with Schacher, Murray) Brauer groups of fields. (81k:12025)

Schacher, Murray See Fein, Burton, (81k:12025)

Sonn, Jack Class groups and Brauer groups. (81g:12012)

12F99 None of the above, but in this section

secondary classifications:

Duret, Jean-Louis Les corps pseudo-finis ont la propriété d'indépendance. (English summary) (81m:03043)

Eršov, Ju. L. (with Fried, Michael) Frattini covers and projective groups without the extension property. (81m:20039)

Fried, Michael See Eršov, Ju. L., (81m:20039)

12Gxx Homological methods

12G05 Galois cohomology [See also 12A60, 12B20, 13A20, 16A16.]

Bayer, Pilar Cohomological properties of the ring of integers of a number field. I. (Spanish) (See 81j:00009)

Fein, Burton (with Schacher, Murray) Brauer groups and character groups of function fields. 81c:12036

Gérard, Yves Sur la cohomologie galoisienne des extensions transcendentes. (English summary) 81e:12024

Jakovlev, A. V. Galois theory for sheaves of sets. (Russian) 81c:12037

Morris, Robert A. Reciprocity isomorphisms for separable field extensions. 81i:12028

Pletch, Andrew Profinite duality groups. I. 81k:12027

Profinite duality groups. II. 81k:12028

Schacher, Murray See Fein, Burton, 81c:12036

Shirai, Susumu A remark on the corestriction-deflation sequence. 81k:12029

secondary classifications:

Gildenhuys, Dion (with Ribes, Luis) Profinite groups and Boolean graphs. (81g:20059)

Hattori, Akira On generalized crossed products. (81g:16006)

Nguyen-Quang-Do Thong Sur le module des relations d'un p -groupe et la suite exacte d'inflation-restriction. (81i:20064)

Ribes, Luis See Gildenhuys, Dion, (81g:20059)

12G10 Cohomological dimension

12G99 None of the above, but in this section

secondary classifications:

Jarden, Moshe Normal automorphisms of free profinite groups. (81b:20024)

12Hxx Differential and difference algebra

12H05 Differential algebra [See also 13N05.]

Berković, L. M. See Cirulik, V. G., 81e:12026

Carlson, R. C. (with Goodearl, K. R.) Commutants of ordinary differential operators. 81j:12025

Cassidy, Phyllis Joan Differential algebraic Lie algebras. 81j:12020

Chalkley, Roger Explicit solutions of an algebraic differential equation. 81e:12025

Charrière, Hélène (with Gérard, Raymond) Réduction formelle de certaines connexions linéaires singulières à plusieurs variables. (English summary) 81j:12021

Cirulik, V. G. (with Berković, L. M.) Some properties of commutative differential operators over a function field of characteristic zero. (Russian) 81e:12026

Cohn, Richard M. The Greenspan bound for the order of differential systems. 81h:12020

Gérard, Raymond See Charrière, Hélène, 81j:12021

Goodearl, K. R. See Carlson, R. C., 81j:12025

Grigorenko, N. V. G -primitive extensions of differential fields. (Russian) 81f:12016

On the inverse problem of the Galois theory of differential fields. (Russian) 81j:12022

Johnson, Joseph Modules of imperfection in differential algebra. 81k:12030

Kolchin, E. R. On universal extensions of differential fields. 81k:12031

Nishikawa, Keiji Algebraic differential equations of Clairaut type from the differential-algebraic standpoint. 81h:12028

Ōtsubo, Shūji Order of Liouvillian elements satisfying an algebraic differential equation of the first order. 81j:12026

Minimal length of Liouville chain for solutions of an algebraic differential equation. 81j:12023

Risch, Robert H. Algebraic properties of the elementary functions of analysis. 81h:12029

Rosenthal, Maxwell On the value group of a differential valuation. 81h:12030

Sit, William Y. Differential dimension polynomials of finitely generated extensions. 81f:12017

secondary classifications:

Ash, Chris (with Rosenthal, John) Some theories associated with algebraically closed fields. (81e:03030)

Beilinson, A. A. Residues and adèles. (Russian) (81f:14010)

Coleman, Robert F. On a stronger version of the Schanuel-Ax theorem. (81j:10048)

Fliess, Michel Generating series for discrete-time nonlinear systems. (81k:93044)

Hauger, Günther Injective Modul über Ringen linearer Differentialoperatoren. (English summary) (81h:16003)

Morrison, S. D. Differential specializations in integral and algebraic extensions. (81d:13020)

Rosenthal, John See Ash, Chris, (81e:03030)

Sallhov, V. H. Algebraic irreducibility of a set of linear differential equations. (Russian) (81k:10055)

Weisfelder, Boris On Lie algebras of differential formal groups of Ritt. (81f:14027)

12H10 Difference algebra [See also 39Axx.]

Infante, Ronald P. Strong normality and normality for difference fields. 81i:12029

Lando, Barbara Extensions of difference specializations. 81e:12027

Levin, A. B. Characteristic polynomials of inverse difference modules and some properties of the inverse difference dimension. (Russian) 81k:12032

12H20 Abstract differential equations [See also 34Gxx.]

12H25 p -adic differential equations [See also 12B40, 14G20, 34Gxx.]

secondary classifications:

Boyarsky, Maurizio p -adic gamma functions and Dwork cohomology. (81e:12029)

12H99 None of the above, but in this section

12Jxx Topological fields

12J05 Normed fields

12J10 Valued fields [See also 10M10.]

Basarab, Șerban A. Towards a general theory of formally p -adic fields. 81e:12028

Manley, P. L. A note on valuation fields. 81e:12038

secondary classifications:

Basarab, Șerban A. A model-theoretic transfer theorem for Henselian valued fields. (81h:03071)

Cohn, P. M. (with Mahdavi-Hezavehi, M.) Extensions of valuations on skew fields. (81m:12024)

van den Dries, Lou A linearly ordered ring whose theory admits elimination of quantifiers is a real closed field. (81e:03033)

Ertso, Ju. L. Multiply valued fields. (Russian) (81m:03044)

Mahdavi-Hezavehi, M. See Cohn, P. M., (81m:12024)

12J15 Ordered fields [See also 10M15.]

Törner, Günter Angeordnete Körper. 81j:12024

secondary classifications:

Coletti, Giulianella (with Regoli, Giuliana; Vincenti, Rita) Algebraic and topological structure of nonstandard models of the reals. (Italian. English summary) (81k:03065a)

(with Regoli, Giuliana; Vincenti, Rita) Errata: "Algebraic and topological structure of nonstandard models of the reals". (Italian) (81k:03065b)

Koleleva, O. M. See Vroegindewey, P. G.; et al., (81a:51007)

Kreinovic, V. Ja. See Vroegindewey, P. G.; et al., (81a:51007)

Regoli, Giuliana See Coletti, Giulianella; et al., (81k:03065a) and Coletti, Giulianella; et al., (81k:03065b)

Stegbauer, Werner A generalized model companion for a theory of partially ordered fields. (81a:03034)

Vincenti, Rita See Coletti, Giulianella; et al., (81k:03065a) and Coletti, Giulianella; et al., (81k:03065b)

Vroegindewey, P. G. (with Kreinovic, V. Ja.; Koleleva, O. M.) An extension of a theorem of A. D. Aleksandrov to a class of partially ordered fields. (81a:51007)

12J17 Topological semi-fields

secondary classifications:

Gusev, A. I. The best approximation in normed modules over semifields. (Russian) (81e:41050)

12J20 General valuation theory

Mottion, Bernard Prolongements de valuations dans un cas non commutatif. (English summary) 81i:12030

Wipulaw, Witold Locally bounded topologies on fields and rings. 81c:12039

secondary classifications:

Becker, Eberhard Partial orders on a field and valuation rings. (81i:12025)

Grunewald, Fritz J. (with Segal, Daniel) On congruence topologies in number fields. (81e:12017)

Segal, Daniel See Grunewald, Fritz J., (81e:12017)

Warner, Seth A new approach to Gel'fand-Mazur theory and the extension theorem. (81h:16030)

12J25 Non-Archimedean valued fields [See also 26E30, 30G05, 32D25, 46P05.]

12J27 Krasner-Tate algebras [See mainly 32E27, also 46P05.]

12J99 None of the above, but in this section

Abouabdillah, Dries Topologies de corps A -linéaires. 81c:12040Cohen, Jo-Anne The strong approximation theorem and locally bounded topologies on $F(X)$. 81k:12033Vizithu, V. N. Uniqueness of the continuation of m -topologies of a field onto its algebraic extensions. (Russian) 81e:12029

Warner, Seth Generalizations of a theorem of Mutylin. 81a:12023

12Kxx Generalizations

12K05 Near-fields [See also 16A76.]

Chen, Yi On characterizing near-fields. 81h:12021

Haiman, Ju. N. Geometric interpretation of a quasifield. (Russian) **81e:12041**

secondary classifications:

Karzel, Helmut (with Kist, Günter) Some applications of near-fields. **(81k:16036)**
Kist, Günter See Karzel, Helmut, **(81k:16036)**

12K10 Semi-fields [See also 16A78.]

12K99 None of the above, but in this section

12Lxx Connections with logic

12L05 Decidability

Denef, J. Diophantine sets over algebraic integer rings. II. **81b:12031**

Polzat, Bruno Une preuve d'un théorème de James Ax sur les extensions algébriques de corps. (English summary) **81m:12026**

secondary classifications:

Ash, Chris (with Rosenthal, John) Some theories associated with algebraically closed fields. **(81e:03030)**

Heintz, Joos Definability bounds of first order theories of algebraically closed fields. **(81j:03064)**

Julian, W. (with Mines, R.; Richman, F.) Algebraic numbers, a constructive development. **(81a:03061)**

Krajčevič, V. Ju. A Diophantine representation of perfect numbers. (Russian. English summary) **(81j:10087)**

Mines, R. See Julian, W.; et al., **(81a:03061)**

Richman, F. See Julian, W.; et al., **(81a:03061)**

Rosenthal, John See Ash, Chris, **(81e:03030)**

Rumely, R. S. Undecidability and definability for the theory of global fields. **(81m:03053)**

Seitenov, S. M. The theory of finite fields with an additional predicate that singles out a subfield. (Russian) **(81g:03040)**

12L10 Ultraproducts

secondary classifications:

Prestel, Alexander Artin's conjecture on p -adic number fields. **(81j:10029)**

12L15 Nonstandard arithmetic [See also 03H15.]

12L99 None of the above, but in this section

secondary classifications:

Duret, Jean-Louis Les corps pseudo-finis ont la propriété d'indépendance. (English summary) **(81m:03043)**

Eriov, Ju. L. Multiply valued fields. (Russian) **(81m:03044)**

Wheeler, William H. Model complete theories of pseudo-algebraically closed fields. **(81e:03024)**

Wood, Carol Notes on the stability of separably closed fields. **(81m:03042)**

13-XX COMMUTATIVE RINGS AND ALGEBRAS (For the noncommutative case, see 16-XX.)

13-01 Elementary exposition, textbooks

secondary classifications:

(Di Sante, A.) See Greco, Silvio, **(81k:14001)**

Greco, Silvio ★Normal varieties. **(81k:14001)**

13-02 Advanced exposition (research surveys, monographs, etc.)

13-03 Historical (must also be assigned at least one classification number from Section 01)

13-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Bougaut, B. Algorithme explicite pour la recherche du P.G.C.D. dans certains anneaux principaux d'entiers de corps de nombres. (English summary) **(81k:12002)**

Renschuch, Bodo Beiträge zur konstruktiven Theorie der Polynomideale. XIV. Zur Berechnung der Hilbertfunktion. (Russian and English summaries) **(81d:13001)**

Beiträge zur konstruktiven Theorie der Polynomideale. XV. Algorithmen zur Basisberechnung von Idealen, Syzygienmoduln und Eliminationsidealen. (Russian and English summaries) **(81d:13002)**

Beiträge zur konstruktiven Theorie der Polynomideale. XVI. Klassifikation eindimensionaler Abhyankarscher Ideale aus $K[x_0, x_1, x_2, x_3]$ für $m=4$ und $m=5$. (Russian and English summaries) **(81d:13003)**

13-06 Proceedings, conferences, etc.

Ring theory ★Studies in commutative ring theory. (Japanese) **81m:13001**

Studies in commutative ring theory ★Studies in commutative ring theory. (Japanese) **81m:13001**

Symposium:

Studies in Commutative Ring Theory ★Studies in commutative ring theory. (Japanese) **81m:13001**

secondary classifications:

(Dubreil, Paul) See Séminaire: Algèbre Paul Dubreil et Marie-Paule Malliavin, **(81f:16001)**

(Malliavin-Brameret, Marie-Paule) See Séminaire: Algèbre Paul Dubreil et Marie-Paule Malliavin, **(81f:16001)**

Algebra ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] **(81f:16001)**

Paris ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] **(81f:16001)**

Séminaire:

Algèbre Paul Dubreil et Marie-Paule Malliavin ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] **(81f:16001)**

13Axx General commutative ring theory

13A05 Divisibility

13A10 Radical theory

13A15 Ideals

Fontana, Marco Topologically defined classes of commutative rings. (Italian summary) **81j:13001**

Gilmer, Robert (with McAdam, Stephen) Ideals contracted from each extension ring. **81c:13001**

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Szeto, George The localization of zero-dimensional rings. **(81d:16004)**

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13B20 Integral dependence; integral closure; integrally closed rings, related rings (Japanese, etc.)

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- Dixon, John D. An isomorphism criterion for modules over a principal ideal domain. (81a:13015)

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- Bazzoni, Silvana Pontryagin type dualities over commutative rings. 81c:13008a
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- Droz, Ju. A. The semigroup of divisors of a commutative ring. (Russian) (81a:13013)
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Papick, Ira J. Coherent overrings. 81m:13016

secondary classifications:

Anderson, D. D. (with Johnson, E. W.; Johnson, Johnny A.) Noether lattices representable as quotients of the lattice of monomially generated ideals of polynomial rings. (81c:06014)

Johnson, E. W. See Anderson, D. D.; et al., (81c:06014)

Johnson, Johnny A. See Anderson, D. D.; et al., (81c:06014)

Ramella, Luciana On the Nagata transform of an ideal. (81d:13008)

13Fxx Arithmetic rings [See also 12--XX.]

13F05 Dedekind and Prüfer rings and their generalizations

Albu, Toma On a paper of Uchida concerning simple finite extensions of Dedekind domains. 81c:13018

Anderson, D. D. (with Anderson, David F.) Generalized GCD domains. 81j:13017

Anderson, David F. The divisor class group of a semigroup ring. 81d:13017

See also Anderson, D. D., 81j:13017

van Deuren, J.-P. (with van Oystaeyen, F.) Arithmetically graded rings. I. 81m:13017

Dobbs, David E. On flat finitely generated ideals. 81m:13018

Faith, Carl C. Injective quotient rings of commutative rings. 81a:13014

Irfan, Mohd. See Quadri, Murtaza A., 81j:13018

van Oystaeyen, F. See van Deuren, J.-P., 81m:13017

Quadri, Murtaza A. (with Irfan, Mohd.) A characterization of Dedekind domains. 81j:13018

secondary classifications:

Alamecu, S. Subrings of affine rings. (81c:13003)

Huckaba, James A. (with Papick, Ira J.) Quotient rings of polynomial rings. (81h:13012)

Osofsky, Barbara L. Projective dimension of "nice" directed unions. (81d:16019)

Papick, Ira J. Coherent overrings. (81m:13016)

A note on proper overrings. (81j:13016)

See also Huckaba, James A., (81h:13012)

Prodanov, Ivan Precompact minimal topologies on some torsion free modules. (Bulgarian summary) (81f:16056)

Schilling, Heinz-Werner Über die Erzeugendenzahl invertierbarer Ideale in Prüferingen. (81j:12016)

Vámos, Peter Sheaf-theoretical methods in the solution of Kaplansky's problem. (81h:13008)

Zöschinger, Helmut Koatomare Moduln. (81g:16033)

13F07 Euclidean rings and generalizations

secondary classifications:

Dupont, Jean-Pierre (with Dussaud, René; Idée, Edwige) Réduction des matrices inversibles d'un anneau euclidien. (81e:20057)

Dussaud, René See Dupont, Jean-Pierre; et al., (81e:20057)

Idée, Edwige See Dupont, Jean-Pierre; et al., (81e:20057)

Lenstra, Hendrik W., Jr. Euclidean ideal classes. (81b:12005)

13F10 Principal ideal rings

Dixon, John D. An isomorphism criterion for modules over a principal ideal domain. 81a:13015

secondary classifications:

- Gustad, Bruce (with Hopkins, Glenn) Commutative semigroup rings which are principal ideal rings. (81i:20099)
 Hopkins, Glenn See Gustad, Bruce, (81i:20099)

13F15 Factorial rings, unique factorization domains

- Bayart, Marc Factorialité et séries formelles irréductibles. I. 81m:13019
 Carlini, Lulu On a connection between a metric of a factorial domain and that of its field of fractions. (Italian. English summary) 81m:13020
 Estes, Dennis R. (with Matijević, Jacob R.) Unique factorization of matrices and Towber rings. 81b:13006
 Galovich, Steven Unique factorization rings with zero divisors. 81j:13019
 Matijević, Jacob R. See Estes, Dennis R., 81b:13006
 Viswanathan, T. M. Factorial coordinate rings of conics in P^2_K . (Italian summary) 81g:13015

secondary classifications:

- Arezzo, Domenico (with Ramella, Luciana) Sur les ouverts affines d'un schéma affine. (81h:14002)
 Avramov, Luchezar L. A class of factorial domains. (81f:14029)
 Ramella, Luciana See Arezzo, Domenico, (81h:14002)

13F20 Polynomial rings [See also 10M05.]

- Asanuma, Teruo D -algebras which are D -stably equivalent to $D[Z]$. 81j:13020
 Cerlento, L. (with Piras, F.) Linear recurrence sequences and division of polynomials. (Italian. English summary) 81j:13021
 Chabert, Jean-Luc Anneaux de Skolem. 81k:13005
 Huckaba, James A. (with Papick, Ira J.) Quotient rings of polynomial rings. 81h:13012
 Martinego, Chiara (with Roggero, Margherita) The divisor class group of certain Krull rings. (Italian. English summary) 81e:13008
 Papick, Ira J. See Huckaba, James A., 81h:13012
 Piras, F. See Cerlento, L., 81j:13021
 Roggero, Margherita See Martinego, Chiara, 81e:13008
 Seldenberg, A. Constructions in a polynomial ring over the ring of integers. 81g:13016

secondary classifications:

- Dickmann, Maximo Alejandro Sur les anneaux de polynômes à coefficients dans un anneau réel clos. (English summary) (81e:03032)
 Lütkeboldt, Werner Affine curves in characteristic p . (81h:14029)
 Ratliff, L. J., Jr. Polynomial rings and H -local rings. (81h:13013)
 Susila, A. A. The cancellation problem for projective modules and related topics. (81c:13011)
 Reciprocity laws and the stable rank of rings of polynomials. (Russian) (81m:13013)
 Zaks, Abraham On a problem of Kaplansky. (81k:13004)
 Zrengowski, Peter Iterated absolute differences. (81c:40001)

13F25 Formal power series rings

- Černý, V. V. Canonical form in conjugacy classes of a one-dimensional group of formally analytic transformations over a field of characteristic $p > 0$. (Russian) 81a:13016
 Kustin, Andrew R. A classification of locally power series algebras. 81k:13006

secondary classifications:

- Bayart, Marc Factorialité et séries formelles irréductibles. I. (81m:13019)
 Solitailvili, A. N. Subalgebra of invariants of the local ring of a zero-dimensional complete intersection. (Russian) (81k:14041)

13F30 Discrete valuation rings

secondary classifications:

- Baeza, R. Über die Stufe von Dedekind Ringen. (81h:10029)

13F99 None of the above, but in this section

- Ingles, Hélène Exemples d'anneaux de Mori. (English summary) 81f:13009
 Klingen, Jutta Über eine topologische Verallgemeinerung von Krullringen. 81e:13009

secondary classifications:

- Chouinard, Leo G., II (with Hardy, Bonnie R.; Shores, Thomas S.) Arithmetical and semihereditary semigroup rings. (81k:20098)
 Hardy, Bonnie R. See Chouinard, Leo G., II; et al., (81k:20098)
 Shores, Thomas S. See Chouinard, Leo G., II; et al., (81k:20098)

13G05 Integral domains

- Bertin, Jean-Étienne Prolongements de Q -anneaux de Matlis. 81i:13006
 Grazzini, Fulvio See Haouat, Youssef, 81e:13010
 Haouat, Youssef (with Grazzini, Fulvio) Différences finies divisées sur un anneau $S(2)$. (English summary) 81e:13010
 Kimura, Tetsuzo (with Niitsuma, Hiroshi) A note on the Noetherian integral domain with a p -basis. 81c:13019

- Maroscia, Paolo Topological properties of some classes of G -domains. (Italian summary) 81c:13020
 Niitsuma, Hiroshi See Kimura, Tetsuzo, 81c:13019

secondary classifications:

- Albu, Toma On a paper of Uchida concerning simple finite extensions of Dedekind domains. (81c:13018)
 Grunewald, Fritz J. (with Segal, Daniel) Remarks on injective specializations. (81a:20058)
 Irfan, Mohd. See Quadri, Murtaza A., (81j:13018)
 Quadri, Murtaza A. (with Irfan, Mohd.) A characterization of Dedekind domain (81j:13018)
 Ritter, Jürgen (with Sehgal, Sudarshan) Group rings of metabelian groups. (81f:20005)
 Segal, Daniel See Grunewald, Fritz J., (81a:20058)
 Sehgal, Sudarshan See Ritter, Jürgen, (81f:20005)

13Hxx Local rings and semilocal rings

13H05 Regular local rings

- Ivanov, A. F. Homological characterization of a class of local rings. (Russian) 81h:13007
 Kimura, Tetsuzo (with Niitsuma, Hiroshi) Regular local ring of characteristic p and p -basis. 81j:13022
 Matsuoka, Tadayuki Reflexivity of the canonical modules of almost complete intersections. (Japanese) 81j:13023
 Niitsuma, Hiroshi See Kimura, Tetsuzo, 81j:13022
 Ratliff, L. J., Jr. Polynomial rings and H -local rings. 81h:13013
 Roberts, Paul Abelian extensions of regular local rings. 81a:13017
 Tye, A. Basic properties of h -regular local Noetherian rings. 81c:13021a
 On h -regular graded algebras of characteristic $p > 0$. 81c:13021b

secondary classifications:

- Colliot-Thélène, Jean-Louis Formes quadratiques sur les anneaux semi-locaux réguliers. (81a:10029)
 Ngô Việt Trung Über allgemeine Hyperflächenschnitte einer algebraischen Varietät. (English summary) (81m:14002)
 Roos, Jan-Erik Relations between Poincaré-Betti series of loop spaces and of local rings. (81g:55019)

13H10 Special types (Macaulay, Gorenstein, etc.)

- Boda, Eduard Einige Eigenschaften der Parameterideale und ihre Anwendungen für Buchsbaum Ringe. (Russian summary) 81f:13010
 Goto, Shiro (with Watanabe, Keiichi) On graded rings. I. 81m:13021
 (with Watanabe, Keiichi) On graded rings. II. (Z^n -graded rings). 81m:13022
 On the Cohen-Macaulayfication of certain Buchsbaum rings. 81m:13023
 Herzog, Jürgen (with Steurich, Manfred) Berechnung einiger Poincaré-Reihen. 81c:13022
 Hinič, V. A. Gorenstein modules for a ring of invariants. (Russian) 81b:13008
 Manaresi, Mirella Some properties of weakly normal varieties. 81e:13011
 Marinari, M. G. (with Niesi, G.) On the locus where the Cohen-Macaulay type has a fixed bound. 81h:13007
 Niesi, G. See Marinari, M. G., 81h:13007
 Okuyama, Hiroshi See Sakuma, Motoyoshi, 81k:13007
 Ratliff, L. J., Jr. Three notes on unmixed local rings. 81h:13008
 Sakuma, Motoyoshi (with Okuyama, Hiroshi) On the Poincaré series of a local ring reduced modulo its socle. 81k:13007
 Sally, Judith D. Superregular sequences. 81m:13024
 Schenzel, Peter Über die freien Auflösungen extremaler Cohen-Macaulay-Ringe. 81j:13024
 Shepherd-Barron, N. I. On a problem of Ernst Kunz concerning certain characteristic functions of local rings. 81e:13012
 Steurich, Manfred See Herzog, Jürgen, 81c:13022
 Watanabe, Keiichi See Goto, Shiro, 81m:13021 and Goto, Shiro, 81m:13022

secondary classifications:

- Almkvist, Gert (with Fossum, Robert) Decomposition of exterior and symmetric powers of indecomposable Z/pZ -modules in characteristic p and relations to invariants. (81b:14024)
 Anick, David Construction d'espaces de lacets et d'anneaux locaux à séries de Poincaré-Betti non rationnelles. (English summary) (81f:55007)
 Backelin, Jürgen La série de Poincaré-Betti d'une algèbre graduée de type fini à une relation est rationnelle. (English summary) (81f:16002)
 Baclawski, Kenneth Cohen-Macaulay ordered sets. (81m:06002)
 Björner, Anders Shellable and Cohen-Macaulay partially ordered sets. (81i:06001)
 Conte, Alberto Cohen-Macaulay varieties. (Italian. English summary) (81h:14028)
 Facchini, Alberto Reflexive rings. (81f:13006)
 Fossum, Robert See Almkvist, Gert, (81b:14024)
 Gustafson, William H. (with Moore, Marion E.) On SB-rings. (81c:13017)
 Herzog, Jürgen Eindimensionale fast-vollständige Durchschnitte sind nicht stark. (English summary) (81d:14006)
 Deformationen von Cohen-Macaulay Algebren. (81m:13012)
 Hochster, Melvin Big and small Cohen-Macaulay modules. (81d:13015)
 Huneke, Craig On the symmetric and Rees algebra of an ideal generated by a d -sequence. (81d:13016)
 Ishida, Masa-Nori Torus embeddings and dualizing complexes. (81e:14005)
 Ivanov, A. F. Homological characterization of a class of local rings. (Russian) (81h:13007)

Lepowsky, James (with Moody, Robert V.) Hyperbolic Lie algebras and quasiregular cusps on Hilbert modular surfaces. (81c:10030)

Matsuoka, Tadayuki Reflexivity of the canonical modules of almost complete intersections. (Japanese) (81j:13023)

Moody, Robert V. See Lepowsky, James, (81c:10030)

Moore, Marion E. See Gustafson, William H., (81c:13017)

Ngô Việt Trung Über die Übertragung der Ringeigenschaften zwischen R und $R[u]/(F)$. (81b:13001)

Rahbar-Rohandel, Hamid Relations entre la série de Betti d'un anneau local de Gorenstein R et celle de l'anneau $R/\text{Socle } R$. (81k:13003)

Robbiano, Lorenzo Remarks on blowing-up divisorial ideals. (81i:14003) (with Valla, Giuseppe) On the equations defining tangent cones. (81i:14004)

Roberts, Paul Abelian extensions of regular local rings. (81a:13017)

Roloff, Hartmut (with Stückrad, Jürgen) Bemerkungen über Zusammenhangseigenschaften und mengentheoretische Darstellung projektiver algebraischer Mannigfaltigkeiten. (81h:14031)

Stanley, Richard P. Invariants of finite groups and their applications to combinatorics. (81a:20015)

Balanced Cohen-Macaulay complexes. (81c:05012)

Stückrad, Jürgen See Roloff, Hartmut, (81h:14031)

Takeuchi, Yasuji On (x) -complexes. (81d:13014)

Valla, Giuseppe See Robbiano, Lorenzo, (81i:14004)

13H15 Multiplicity theory and related topics

Avramov, Luchezar L. Small homomorphisms of local rings. 81i:13009

Kobayashi, Yuji On the multiplicity of graded algebras. 81f:13011

Roberts, Leslie G. An example of a decreasing Hilbert function. 81j:13025

Schoeller, C. Rationalité de certaines séries de Poincaré. 81h:13014

secondary classifications:

Almkvist, Gert Invariants, mostly old ones. (81j:14029)

Brînzănescu, Vasile Vector bundles on algebraic varieties. Hilbert-Samuel polynomials relative to proper morphisms. (Romanian. English summary) (81m:14012)

Brown, William C. Multiplicity sequences and the modules of higher differentials. (81m:14003)

Renschuch, Bodo Beiträge zur konstruktiven Theorie der Polynomideale. XIV. Zur Berechnung der Hilbertfunktion. (Russian and English summaries) (81d:13001)

13H99 None of the above, but in this section

Avramov, Luchezar L. Sur la croissance des nombres de Betti d'un anneau local. (English summary) 81d:13018

Goto, Shiro The rank of syzygies under the action by a finite group. 81i:13010

Grigorjan, A. G. Π -flat families of functors. (Russian) 81c:13023

Herzog, Jürgen (with Steurich, Manfred) Two applications of change of rings theorems for Poincaré series. 81c:13013

Levin, Gerson Poincaré series of modules over local rings. 81b:13009

Ooshii, Akira Openness of loci, P -excellent rings and modules. 81k:13008

Steurich, Manfred See Herzog, Jürgen, 81c:13013

secondary classifications:

André, Michel Algèbre homologique des anneaux locaux à corps résiduels de caractéristique deux. (81g:13012)

Avramov, Luchezar L. Homomorphismes d'anneaux locaux et homologie. (81g:13013)

Huffman, W. Cary Polynomial invariants of finite linear groups of degree two. (81g:15033)

Scheja, Günter (with Storch, Uwe) Residuen bei vollständigen Durchschnitten. (81c:14029)

Storch, Uwe See Scheja, Günter, (81c:14029)

13Jxx Topological rings [See also 16A80.]

13J05 Power series rings

Bender, Peter Eine Bemerkung zu Derivationen von Potenzreihen. 81d:13019

Mostowski, Tadeusz (with Pfister, Gerhard) Der Cohensche Eliminationsatz in positiver Charakteristik. 81h:13015

Pfister, Gerhard See Mostowski, Tadeusz, 81h:13015

secondary classifications:

Gilmer, Robert (with Heinzer, William) The Laskerian property, power series rings and Noetherian spectra. (81c:13007)

Heinzer, William See Gilmer, Robert, (81c:13007)

Kustin, Andrew R. A classification of locally power series algebras. (81k:13006)

Lequain, Yves Catenarian property in a domain of formal power series. (81g:13009)

Roman, Steven The algebra of formal series. (81b:05016a)
Erratum: "The algebra of formal series". (81b:05016b)

13J10 Complete rings

Kundert, Esayas George Basis in a certain completion of the s -d-ring over the rational numbers. (Italian summary) 81j:13026a

Basis in a certain completion of the s -d-ring over the rational numbers. II. (Italian summary) 81j:13026b

Rothaus, Christel Komplettierung semilokaler quasiasgezeichneter Ringe. 81c:13024

secondary classifications:

Marot, Jean About Nagata rings. (81m:13005)

Prodromov, Ivan Precompact minimal topologies on some torsion free modules. (Bulgarian summary) (81f:16056)

13J15 Henselian rings

secondary classifications:

Di Franco, Fabio On the lifting of subalgebras over Henselian pairs. (Italian. English summary) (81i:13003)

13J20 Global topological rings

Faltings, Gerd A contribution to the theory of formal meromorphic functions. 81c:13025

13J25 Ordered rings [See also 06F25, 16A86.]

13J99 None of the above, but in this section

secondary classifications:

Abouabdillah, Driss Topologies de corps A -linéaires. (81c:12040)

Ailling, Norman L. Global ideal theory of meromorphic function fields. (81b:30009)

Bazzoni, Silvana Pontryagin type dualities over commutative rings. (81c:13000a)

Carini, Luisa On a connection between a metric of a factorial domain and that of its field of fractions. (Italian. English summary) (81m:13020)

Cohen, Jo-Anne The strong approximation theorem and locally bounded topologies on $F(X)$. (81k:12033)

Facchini, Alberto On the ring of quotients of a Noetherian commutative ring with respect to the Dickson topology. (81m:13007)

Klingen, Jutta Über eine topologische Verallgemeinerung von Krullringen. (81c:13009)

Lando, Barbara Extensions of difference specializations. (81c:12027)

13K05 Witt vectors and related rings

Grayson, Daniel R. Grothendieck rings and Witt vectors. 81c:13014

secondary classifications:

Hazewinkel, Michiel Twisted Lubin-Tate formal group laws, ramified Witt vectors and (ramified) Artin-Hasse exponentials. (81m:14032)

13L05 Applications of logic to commutative algebra [See also 03Cxx, 03Hxx.]

secondary classifications:

Cherlin, Gregory On \aleph_0 -categorical nilrings. (81c:03031)

13Mxx Finite commutative rings [For number-theoretic aspects, see 12Cxx.]

13M05 Structure

secondary classifications:

Fletcher, Colin R. Rings of small order. (81g:16026)

Jones, Patricia (with Ligh, Steve) The multiplicative semigroup of integers modulo n . (81d:20057)

Ligh, Steve See Jones, Patricia, (81d:20057)

13M10 Polynomials

secondary classifications:

Nečaev, A. A. A basis of generalized identities of a finite commutative local principal ideal ring. (Russian) (81i:08008)

13M99 None of the above, but in this section

13N05 Differential algebra [See also 12H05.]

Gelfond, O. A. (with Hovanskii, A. G.) Real Liouville functions. (Russian) 81k:13009

Hovanskii, A. G. See Gelfond, O. A., 81k:13009

Morrison, S. D. Differential specializations in integral and algebraic extensions. 81d:13020

Trendafilov, I. D. Integrally closed modules. (Bulgarian. Russian and English summaries) 81h:13016

secondary classifications:

Krčev, I. M. Commutative rings of ordinary linear differential operators. (Russian) (81d:47031)

Lando, Barbara Extensions of difference specializations. (81c:12027)

Sokolov, V. V. Birationally isomorphic commutative rings of differential operators. (Russian) (81f:47048)

14-XX ALGEBRAIC GEOMETRY

14-01 Elementary exposition, textbooks

- (Di Sante, A.) See Greco, Silvio, 81k:14001
 Greco, Silvio ★Normal varieties. 81k:14001
 Néron, André ★Variétés abéliennes. (French) [Abelian manifolds] 81j:14001
 Roquette, Peter Altes und Neues aus der Diophantischen Geometrie. 81g:14001

14-02 Advanced exposition (research surveys, monographs, etc.)

- Milne, James S. ★Étale cohomology. 81j:14002
 (Miyake, Katsuya) See Oda, Tadao, 81e:14001
 Miyazaki, Masayoshi ★Curves on rational and unirational surfaces. 81f:14001
 Newstead, P. E. ★Introduction to moduli problems and orbit spaces. 81k:14002
 Oda, Tadao ★Torus embeddings and applications. 81e:14001
 Okonek, Christian (with Schneider, Michael; Spindler, Heinz) ★Vector bundles on complex projective spaces. 81h:14001
 Schneider, Michael See Okonek, Christian; et al., 81b:14001
 Spindler, Heinz See Okonek, Christian; et al., 81b:14001

14-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- (Deligne, Pierre) See Kiehl, Reinhardt, (81f:01035d)
 (Hadamard, J.) See Picard, Charles-Émile, (81j:01049a)
 (Hervé, Michel) See Picard, Charles-Émile, (81j:01049a)
 Kiehl, Reinhardt Zum mathematischen Werk von Pierre Deligne. (81f:01035d)
 (Leray, Jean) See Picard, Charles-Émile, (81j:01049a)
 Picard, Charles-Émile ★Œuvres de Ch.-É. Picard. Tome I. (French) [Works of Ch.-É. Picard. Vol. I] (81j:01049a)
 ★Œuvres de Ch.-É. Picard. Tome II. (French) [Works of Ch.-É. Picard. Vol. II] (81j:01049b)
 (Serre, Jean-Pierre) See Picard, Charles-Émile, (81j:01049a)
 Bibliography:
 Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)
 Biography:
 Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)

14-04 Explicit machine computation and programs (not the theory of computation or programming)

- Bartz, H. (with Fischer, Klaus G.; Folz, H.; Zimmer, Horst Günter) Some computations related to torsion points on elliptic curves over number fields. 81m:14001
 Davenport, J. H. The computerisation of algebraic geometry. 81h:14001
 Fischer, Klaus G. See Bartz, H.; et al., 81m:14001
 Folz, H. See Bartz, H.; et al., 81m:14001
 Zimmer, Horst Günter See Bartz, H.; et al., 81m:14001

14-06 Proceedings, conferences, etc.

- (Hirschowitz, André) See Vector bundles and differential equations, 81i:14002
 (Nagata, Masayoshi) See Proceedings: International Symposium on Algebraic Geometry, 81e:14002
 (Seidenberg, A.) See Studies in algebraic geometry, 81i:14001
 Algebraic geometry ★Proceedings of the International Symposium on Algebraic Geometry. 81e:14002
 ★Studies in algebraic geometry. 81i:14001
 Conference:
 Vector Bundles and Differential Equations ★Vector bundles and differential equations. 81i:14002
 Differential equations ★Vector bundles and differential equations. 81i:14002
 Geometry ★Proceedings of the International Symposium on Algebraic Geometry. 81e:14002
 Kyoto ★Proceedings of the International Symposium on Algebraic Geometry. 81e:14002
 Nice ★Vector bundles and differential equations. 81i:14002
 Proceedings:
 International Symposium on Algebraic Geometry ★Proceedings of the International Symposium on Algebraic Geometry. 81e:14002
 Studies in algebraic geometry ★Studies in algebraic geometry. 81i:14001
 Symposium:
 Algebraic Geometry ★Proceedings of the International Symposium on Algebraic Geometry. 81e:14002
 Vector bundles and differential equations ★Vector bundles and differential equations. 81i:14002
 secondary classifications:
 Ring theory ★Studies in commutative ring theory. (Japanese) (81m:13001)
 Studies in commutative ring theory ★Studies in commutative ring theory. (Japanese) (81m:13001)
 Symposium:
 Studies in Commutative Ring Theory ★Studies in commutative ring theory. (Japanese) (81m:13001)

14Axx Foundations

14A05 Relevant commutative algebra [See also 13-XX.]

- Valabrega, Paolo Errata: "P-morphisms and prolongation of sheaves" [Rend. Sem. Mat. Univ. Politec. Torino 36 (1977/78), 313-330 (1979); MR 80k:14002]. (Italian) 81f:14002

secondary classifications:

- Lazarus, Michel Fermeture intégrale et changement de base. (English summary) (81m:13004)
 Maroscia, Paolo Topological properties of some classes of G -domains. (Italian summary) (81c:13020)

14A10 Varieties

- Ngô Việt Trung Über allgemeine Hyperflächenschnitte einer algebraischen Varietät. (English summary) 81m:14002

14A15 Schemes

- Arezzo, Domenico (with Ramella, Luciana) Sur les ouverts affines d'un schéma affine. 81h:14002
 Coste, Michel See Coste-Roy, Marie-Françoise, 81c:14001
 Coste-Roy, Marie-Françoise (with Coste, Michel) Le spectre étale réel d'un anneau euclidien. (English summary) 81c:14001
 Picco Botta, Luciana (with Verra, Alessandro) Discrete Aleksandrov schemes. (Italian) 81j:14003
 Ramella, Luciana See Arezzo, Domenico, 81h:14002
 Verra, Alessandro See Picco Botta, Luciana, 81j:14003

secondary classifications:

- Ramella, Luciana On the Nagata transform of an ideal. (81d:13006)
 Tamone, Grazia On a generalization of the notion of glueing. (Italian. English summary) (81h:13004)
 Wraith, Gavin C. Generic Galois theory of local rings. (81c:13004)

14A20 Generalizations (algebraic spaces, motifs)

- Artin, M. Specialization of representations of rings. 81k:14003
 Cherenack, Paul Internal hom-sets in an extension of affine schemes over a field. 81c:14002
 Iliev, M. D. On some morphisms of algebraic stacks. I. (Bulgarian. Russian and English summaries) 81d:14001a
 On some morphisms of algebraic stacks. II. (Bulgarian. Russian and English summaries) 81d:14001b
 Formal algebraic stacks. I. (Bulgarian. Russian and English summaries) 81d:14002a
 Formal algebraic stacks. II. (Bulgarian. Russian and English summaries) 81d:14002b

secondary classifications:

- Dubuc, Eduardo J. (with Reyes, Gonzalo E.) Subtoposes of the ring classifier. (81j:03096)
 Reyes, Gonzalo E. See Dubuc, Eduardo J., (81j:03096)

14A25 Elementary questions

- Kleiman, Steven L. Misconceptions about K_* . 81e:14003

secondary classifications:

- Maggioli, Renato (with Ragusa, Alfio) Algebras for which the generalized Hilbert nullstellensatz holds. (Italian. English summary) (81f:13002)
 Ragusa, Alfio See Maggioli, Renato, (81f:13002)

14A99 None of the above, but in this section

secondary classifications:

- Golan, Jonathan S. ★Structure sheaves over a noncommutative ring. (81k:16002)
 Patil, K. B. Equivalent conditions for cancellation of graded Azumaya algebras. (81g:16007)
 Renschuch, Bodo Beiträge zur konstruktiven Theorie der Polynomideale. XIV. Zur Berechnung der Hilbertfunktion. (Russian and English summaries) (81d:13001)
 Beiträge zur konstruktiven Theorie der Polynomideale. XV. Algorithmen zur Basisberechnung von Idealen, Syzygienmodulen und Eliminationsidealen. (Russian and English summaries) (81d:13002)
 Beiträge zur konstruktiven Theorie der Polynomideale. XVI. Klassifikation eindimensionaler Abhyankerscher Ideale aus $K[x_0, x_1, x_2]$ für $m=4$ und $m=5$. (Russian and English summaries) (81d:13003)

14Bxx Local theory [See also 32Bxx.]

14B05 Singularities [See also 14E15, 32B30, 32C40, 58C27.]

- Brown, William C. Multiplicity sequences and the modules of higher differentials. 81m:14003

- Gallatelli, Dionisio On the singularities of hypersurfaces that pass through a given projective variety. (Italian. English summary) **81j:14004**
- Grigor'ev, D. Ju. (with Ivanov, N. V.) On the Eisenbud-Levine formula over a perfect field. (Russian) **81h:14003**
- Hironaka, Heisuke On Zariski dimensionality type. **81m:14006**
- Ivanov, N. V. See Grigor'ev, D. Ju., **81h:14003**
- Jouanolou, J. P. Singularités rationnelles du résultant. **81j:14005**
- Langevin, Rémi Classe moyenne d'une sous-variété d'une sphère ou d'un espace projectif. **81k:14004**
- Looijenga, Edvard Homogeneous spaces associated to certain semi-universal deformations. **81j:14006**
- Nobile, Augusto On saturations of embedded analytic rings. **81k:14005**
- Recio Muñoz, Tomás J. Some considerations on the tangent cone. (Spanish) **81m:14004**
- Robbiano, Lorenzo Remarks on blowing-up divisorial ideals. **81h:14003**
(with Valla, Giuseppe) On the equations defining tangent cones. **81i:14004**
- Sally, Judith D. Tangent cones at Gorenstein singularities. **81e:14004**
- Treger, Robert Rational singularities in dimension > 2 . **81d:14003**
- Valla, Giuseppe See Robbiano, Lorenzo, **81i:14004**
- Zariski, Oscar Foundations of a general theory of equisingularity on r -dimensional algebraic varieties, of embedding dimension $r+1$. **81m:14005**

secondary classifications:

- Adkins, William A. Local algebraicity of some analytic hypersurface. (**81d:32020**)
- Arnol'd, V. I. Some unsolved problems of singularity theory. (Russian) (**81k:32009**)
- Bădescu, Lucian Applications of the Grothendieck duality theory to the study of normal isolated singularities. (**81a:14012**)
- Ehlers, Fritz ★Newtonpolyeder und die Monodromie von Hyperflächensingularitäten. (German) (Newton polyhedra and the monodromy of hypersurface singularities) (**81d:32021**)
- Gerjunov, V. V. The Poincaré polynomial of the space of residue forms on a quasihomogeneous complete intersection. (Russian) (**81j:32010**)
- Herzog, Jürgen Deformation of certain Gorenstein singularities. (**81d:14005**)
- Knöller, Friedrich Wilhelm Multiplizitäten "unendlich-ferner" Spitzen. (English summary) (**81b:10016**)
- Lepowsky, James (with Moody, Robert V.) Hyperbolic Lie algebras and quasiregular cusps on Hilbert modular surfaces. (**81e:10030**)
- (Lipman, J.) See Zariski, Oscar, (**81f:01049**)
- Moody, Robert V. See Lepowsky, James, (**81e:10030**)
- Oka, Mutsuo On the topology of the Newton boundary. II. Generic weighted homogeneous singularity. (**81i:32007**)
- Pfene, Ragni Ideals associated to a desingularization. (**81a:14001**)
- Scherk, John On the monodromy theorem for isolated hypersurface singularities. (**81h:14009**)
- Shiga, Hiroo Notes on links of complex isolated singular points. (**81f:57039**)
- Takijima, Kunio Quotients of $C^n - \{0\}$ by diagonal C^* -actions. (**81g:32830**)
- (Tessier, B.) See Zariski, Oscar, (**81f:01049**)
- Wall, Charles T. C. A note on symmetry of singularities. (**81f:32009**)
- Zariski, Oscar ★Collected papers. Vol. IV. (**81f:01049**)
- Bibliography:
Zariski, Oscar See Zariski, Oscar, (**81f:01049**)

14B07 Deformations of singularities [See also 14D15, 32C40, 32G05, 32G11, 32G13.]

- Aleksandrov, A. G. Deformations of one-dimensional singularities with invariants $c = \delta + 1$. (Russian) **81d:14004**
- Buchweitz, Ragnar-Olaf (with Greuel, Gert-Martin) The Milnor number and deformations of complex curve singularities. **81j:14007**
- Greuel, Gert-Martin See Buchweitz, Ragnar-Olaf, **81j:14007**
- Herzog, Jürgen Deformation of certain Gorenstein singularities. **81d:14005**
Eindimensionale fast-vollständige Durchschnitte sind nicht starr. (English summary) **81d:14006**

secondary classifications:

- Happel, Dieter Deformations of five-dimensional algebras with unit. (**81f:16030**)
- Herzog, Jürgen Deformationen von Cohen-Macaulay Algebren. (**81m:13012**)
- Kantor, Jean-Michel Dérivations sur les singularités quasi-homogènes: cas des courbes. (English summary) (**81h:32013a**)
Dérivations sur les singularités quasi-homogènes: cas des hypersurfaces. (English summary) (**81h:32013b**)
Rectificatif à la note: "Dérivations sur les singularités quasi-homogènes: cas des courbes". (**81h:32013c**)
- Kurats, Ulrich On equisingular deformations of cone-like surface singularities. (**81f:32026**)
- Kawamata, Yujiro An equisingular deformation theory via embedded resolution of singularities. (**81g:32010**)
- Suzuki, Masahiko See Yoshinaga, Etsuo, (**81b:32001**)
- Wall, Charles T. C. Affine cubic functions. II. Functions on C^3 with a corank 2 singular point. (**81k:32010**)
- Winters, Gayn B. Deformations of fibers of curves over $k[[t]]$. (**81f:14005**)
- Yoshinaga, Etsuo (with Suzuki, Masahiko) Normal forms of nondegenerate quasihomogeneous functions with inner modality < 4 . (**81b:32001**)

14B10 Infinitesimal methods

secondary classifications:

- Ogus, Arthur Supersingular $K3$ crystals. (**81e:14024**)

14B12 Local deformation theory, Artin approximation, etc.

secondary classifications:

- Kaplan, Stanley Formal and convergent power series solutions of singular partial differential equations. (**81j:35024**)
- Tullipani, S. On solutions of algebraic equations whose coefficients are germs of continuous functions. (Italian summary) (**81h:39006**)

14B15 Local cohomology [See also 32C36.]

- Bănică, Constantin (with Stoia, Manuela) Singular sets of a module and local cohomology. (French summary) **81d:14007**
- Boutot, Jean-François ★Schéma de Picard local. (French) [Local Picard schema] **81j:14008**
- Evans, E. Graham, Jr. (with Griffith, Phillip A.) Local cohomology modules for normal domains. **81b:14002**
- Griffith, Phillip A. See Evans, E. Graham, Jr., **81b:14002**
- Ishida, Masa-Nori Torus embeddings and dualizing complexes. **81e:14005**
- Stoia, Manuela See Bănică, Constantin, **81d:14007**

secondary classifications:

- Goto, Shiro (with Watanabe, Keiichi) On graded rings. I. (**81m:13021**)
(with Watanabe, Keiichi) On graded rings. II. (Z^n -graded rings). (**81m:13022**)
- Hlině, V. A. Gorenstein modules for a ring of invariants. (Russian) (**81b:13008**)
- Sharp, Rodney Y. Necessary conditions for the existence of dualizing complexes in commutative algebra. (**81d:13013**)
- Watanabe, Keiichi See Goto, Shiro, (**81m:13021**) and Goto, Shiro, (**81m:13022**)

14B20 Formal neighborhoods

14B25 Local structure of maps: étale, flat, etc. [See also 13-XX, 14E40.]

secondary classifications:

- Brodmann, Markus P. Finiteness of ideal transforms. (**81g:13004**)
- Bulund, Alexandru Sur les idéaux liées. (**81f:13005**)
- Faltings, Gerd Ergänzungen zu einem Artikel über dualisierende Komplexe. (**81m:13014**)

14B99 None of the above, but in this section

secondary classifications:

- Faltings, Gerd A contribution to the theory of formal meromorphic functions. (**81c:13025**)
- Greco, Silvio (with Traverso, C.) On seminormal schemes. (**81j:14030**)
- Okuyama, Hiroshi See Sakuma, Motoyoshi, (**81k:13007**)
- Rahbar-Rohandeh, Hamid Relations entre la série de Betti d'un anneau local de Gorenstein R et celle de l'anneau $R/\text{Socle } R$. (**81k:13003**)
- Robbiano, Lorenzo A theorem on normal flatness. (**81e:13004**)
- Sakuma, Motoyoshi (with Okuyama, Hiroshi) On the Poincaré series of a local ring reduced modulo its socle. (**81k:13007**)
- Traverso, C. See Greco, Silvio, (**81j:14030**)

14Cxx Cycles and subschemes

14C05 Parametrization (Chow and Hilbert schemes)

- Chang, Hai Ch'ao On Hilbert-Chow morphism II. **81e:14006**
- D'Souza, Cyril Compactification of generalised Jacobians. **81h:14004**
- Itaka, Shigeru Weierstrass forms associated with linear systems. **81e:14003**
- Rego, C. J. The compactified Jacobian. **81k:14006**

secondary classifications:

- Altman, Allen B. (with Kleiman, Steven L.) Compactifying the Picard scheme. II. (**81f:14025b**)
(with Kleiman, Steven L.) Compactifying the Picard scheme. (**81f:14025a**)
- Emsalem, J. See Iarrobino, A., (**81c:14004**)
- Iarrobino, A. (with Emsalem, J.) Some zero-dimensional generic singularities; finite algebras having small tangent space. (**81c:14004**)
- Ishida, Masa-Nori Compactifications of a family of generalized Jacobian varieties. (**81h:14025**)
- Kleiman, Steven L. See Altman, Allen B., (**81f:14025a**) and Altman, Allen B., (**81f:14025b**)
- Morrison, Ian Projective stability of ruled surfaces. (**81e:14007**)
- Vainsencher, Israel The degrees of certain strata of the dual variety. (**81g:14024**)

14C10 Equivalence relations

14C15 Rational equivalence rings

- Colliot-Thélène, Jean-Louis (with Coray, Daniel) L'équivalence rationnelle sur les points fermés des surfaces rationnelles fibrées en coniques. **81d:14008**
- Coray, Daniel See Colliot-Thélène, Jean-Louis, **81d:14008**
- Grayson, Daniel R. Algebraic cycles and algebraic K -theory. **81m:14007**
- Hori, Samuel A. A generalization of the Gysin homomorphism for flag bundles. **81g:14002**
- Roitman, A. A. The torsion of the group of 0-cycles modulo rational equivalence. **81g:14003**

secondary classifications:

Roitman, A. A. Rational equivalence of zero-dimensional cycles. (Russian) (81j:14009)

14C17 Intersection theory

Fulton, William A note on the arithmetic genus. 81k:14007

secondary classifications:

Bănică, Constantin (with Ueno, Kenji) On the Hilbert-Samuel polynomial in complex analytic geometry. (81k:32011)

González Sprinberg, Gerardo Une formule pour les singularités isolées de surfaces. (English summary) (81f:14020)

Holme, Andun On the dual of a smooth variety. (81d:14030)

Ueno, Kenji See Bănică, Constantin, (81k:32011)

14C20 Divisors, linear systems

Bădescu, Lucian Sur les diviseurs amples. (English summary) 81f:14003

Kawamata, Yujiro On the cohomology of \mathbb{Q} -divisors. 81h:14005

Matsumaga, Hiromichi Automorphisms of some surfaces and equivariant line bundles. 81e:14005

Palleschi, Marino Divisors of the first kind of a nonsingular algebraic variety. I. (Italian. English summary) 81d:14009a

Divisors of the first kind of a nonsingular algebraic variety. II. (Italian. English summary) 81d:14009b

secondary classifications:

Chern, Shih-Shen (with Griffiths, Phillip A.) Linearization of webs of codimension one and maximum rank. (81k:53010)

Griffiths, Phillip A. (with Harris, Joseph) On the variety of special linear systems on a general algebraic curve. (81e:14033)

See also Chern, Shih-Shen, (81k:53010)

Harris, Joseph See Griffiths, Phillip A., (81e:14033)

Vershuren, A. On the Picard group of a Grothendieck category. (81j:18017)

14C21 Webs, nets [See also 53A60.]

secondary classifications:

Griffiths, Phillip A. (with Harris, Joseph) Algebraic geometry and local differential geometry. (81k:53004)

Harris, Joseph See Griffiths, Phillip A., (81k:53004)

14C22 Picard groups

Magid, Andy R. Picard groups of rings of invariants. 81g:14004

secondary classifications:

Campana, Frédéric Variations de fibrés vectoriels. Applications aux espaces de sections et aux diviseurs. (81f:32040)

Gilmer, Robert (with Heitmann, Raymond C.) On $\text{Pic}(R[X])$ for R seminormal. (81a:13006)

Heitmann, Raymond C. See Gilmer, Robert, (81a:13006)

Martino, Chiara (with Roggero, Margherita) The divisor class group of certain Krull rings. (Italian. English summary) (81e:13008)

Roggero, Margherita See Martino, Chiara, (81e:13008)

14C25 Zero-cycles

Roitman, A. A. Rational equivalence of zero-dimensional cycles. (Russian) 81j:14009

secondary classifications:

Chang, Hai Ch'ao On Hilbert-Chow morphism II. (81e:14006)

Colliot-Thélène, Jean-Louis (with Coray, Daniel) L'équivalence rationnelle sur les points fermés des surfaces rationnelles fibrées en coniques. (81d:14008)

Coray, Daniel See Colliot-Thélène, Jean-Louis, (81d:14008)

Roitman, A. A. The torsion of the group of 0-cycles modulo rational equivalence. (81g:14003)

14C30 Transcendental methods, Hodge theory [See also 32J25.]

Kawamata, Yujiro The structure of the Albanese map of an algebraic variety of Kodaira dimension zero. 81g:14005

Quine, J. R. (with Yang, Paul C.) A noncompact version of Plücker's second equation. 81h:14006

Yang, Paul C. See Quine, J. R., 81h:14006

Zucker, Steven M. Hodge theory with degenerating coefficients. L_2 cohomology in the Poincaré metric. 81a:14002

secondary classifications:

Collino, Alberto Footnote to a paper of Griffiths: "On the periods of certain rational integrals. I, II" [Ann. of Math. (2) 90 (1969), 460-541; MR 41 #5357]. (Italian summary) (81i:14028)

14C35 Applications of methods of algebraic K-theory [See also 14F05, 18F25.]

Bloch, Spencer Some formulas pertaining to the K -theory of commutative group-schemes. 81h:14007

secondary classifications:

Bloch, Spencer Algebraic K -theory and crystalline cohomology. (81j:14011)

Dayton, Barry H. (with Weibel, Charles A.) K -theory of hyperplanes. (81e:18015)

Morris, Robert A. Derivations of Witt vectors with application to K_2 of truncated polynomial rings and Laurent series. (81i:18012)

Orecchia, Ferruccio On some groups of the K -theory of affine varieties. (Italian) (81j:13012)

Weibel, Charles A. See Dayton, Barry H., (81e:18015)

14C40 Riemann-Roch theorems [See also 14F12.]

14C99 None of the above, but in this section

secondary classifications:

Fujita, Kazumori (with Itoh, Shiroh) A note on Noetherian Hilbert rings. (81e:13002)

Itoh, Shiroh See Fujita, Kazumori, (81e:13002)

Kawakubo, Katsuo Equivariant Riemann-Roch theorems, localization and formal group law. (81j:57020)

Viswanathan, T. M. Factorial coordinate rings of conics in P^2_k . (Italian summary) (81g:13015)

14Dxx Families, fibrations

14D05 Structure of families (Picard-Lefschetz, Picard-Fuchs theory, etc.)

Dekkers, W. The matrix of a connection having regular singularities on a vector bundle of rank 2 on $P^1(C)$. 81m:14008

Jouanolou, J. P. ★Equations de Pfaff algébriques. (French) [Algebraic Pfaffian equations] 81k:14008

Scherk, John On the monodromy theorem for isolated hypersurface singularities. 81k:14009

Szpiro, L. Sur le théorème de rigidité de Parsin et Arakelov. 81f:14004

secondary classifications:

(Chan, Lo Kam) See Pham, Frédéric, (81h:32015)

Chudnovsky, David V. Simplified Schlesinger's systems. (81d:34004)

Gordon, Gerald Leonard On a simplicial complex associated to the monodromy. (81j:32017)

Leksin, V. P. Fuchsian representations of a fundamental group of a complex manifold. (Russian) (81f:14007)

(Maisonobe, Philippe) See Pham, Frédéric, (81h:32015)

Okamoto, Kazuo Déformation d'une équation différentielle linéaire avec une singularité irrégulière sur un tore. (81e:34009)

Pham, Frédéric ★Singularités des systèmes différentiels de Gauss-Manin. (French) [Singularities of Gauss-Manin differential systems] (81h:32015)

Ramis, J.-P. Dévissage Gevrey. (English summary) (81g:34010)

Solutions Gevrey des équations différentielles à points singuliers irréguliers. (81j:58008)

(Rombaldi, Jean-Etienne) See Pham, Frédéric, (81h:32015)

Sabat, G. B. A system of equations of S. P. Novikov. (Russian) (81k:58038)

Usui, Samuel Local Torelli theorem for some nonsingular weighted complete intersections. (81m:14026)

Verdier, Jean-Louis Équations différentielles algébriques. (81j:58050)

Zucker, Steven M. Hodge theory with degenerating coefficients. L_2 cohomology in the Poincaré metric. (81a:14002)

14D10 Arithmetic ground fields (finite, local, global)

14D15 Formal methods; deformations [See also 13D10, 14B07, 16A58, 32Gxx.]

Emsalem, J. See Iarrobino, A., 81c:14004

Iarrobino, A. (with Emsalem, J.) Some zero-dimensional generic singularities; finite algebras having small tangent space. 81c:14004

Winters, Gayn B. Deformations of fibers of curves over $k[[t]]$. 81f:14005

secondary classifications:

Laksov, Dan Deformation and transversality. (81d:14027)

Mazzola, Guerino The algebraic and geometric classification of associative algebras of dimension five. (81g:16039)

van der Put, M. Discontinuous groups. (81d:10023)

14D20 Algebraic moduli problems (For analytic moduli problems, see 32G13.)

Dimca, Alexandru On the algebraic structures and the automorphism groups of the nonsingular projective hypersurfaces. 81h:14006

Fujita, Takao On the hyperplane section principle of Lefschetz. 81c:14005

Matsusaka, T. On polarized varieties of dimension 3. I. 81d:14010

Ramanathan, A. Moduli for principal bundles. 81c:14006

Ueno, Kenji Classification of algebraic manifolds. 81d:14011

secondary classifications:

- Bogura, Okko H. (with van der Weiden, Antonius J. J.) Input-output invariants for linear multivariable systems. (81m:93022)
- Byrnes, Christopher I. On the control of certain deterministic, infinite-dimensional systems by algebraic-geometric techniques. (81g:93050)
(with Hurt, Norman E.) On the moduli of linear dynamical systems. (81e:93020)
(with Falb, Peter L.) Applications of algebraic geometry in system theory. (81f:93017)
- Deligne, Pierre Variétés de Shimura: interprétation modulaire, et techniques de construction de modèles canoniques. (81i:10032)
- Falb, Peter L. See Byrnes, Christopher I. (81f:93017)
- Francia, Paolo Some remarks on minimal models. I. (81h:14013)
- Gieseker, D. On the moduli of vector bundles on an algebraic surface. (81h:14014)
- Hartshorne, Robin Algebraic vector bundles on projective spaces: a problem list. (81m:14014)
- Hosoe, Shigeyuki Determination of generic dimensions of controllable subspaces and its application. (81m:93012)
- Hurt, Norman E. See Byrnes, Christopher I. (81e:93020)
- Kawamata, Yujiro The Kodaira dimension of certain fiber spaces. (81e:14022)
The structure of the Albanese map of an algebraic variety of Kodaira dimension zero. (81g:14005)
- Murayama, Masaki Boundedness of semistable sheaves of small ranks. (81h:14015)
- Mehta, V. B. (with Seshadri, C. S.) Moduli of vector bundles on curves with parabolic structures. (81i:14010)
- Mumford, D. Hirzebruch's proportionality theorem in the noncompact case. (81a:32026)
- Newstead, P. E. ★Introduction to moduli problems and orbit spaces. (81k:14002)
- Okonek, Christian (with Schneider, Michael; Spindler, Heinz) ★Vector bundles on complex projective spaces. (81b:14001)
- Schneider, Michael See Okonek, Christian; et al. (81b:14001)
- Seshadri, C. S. Desingularisation of the moduli varieties of vector bundles on curves. (81g:14011)
See also Mehta, V. B. (81i:14010)
- Sontag, Eduardo D. ★Polynomial response maps. (81a:93024)
- Spindler, Heinz See Okonek, Christian; et al. (81b:14001)
- Ueno, Kenji On algebraic fibre spaces of abelian varieties. (81d:14012)
- van der Weiden, Antonius J. J. See Bogura, Okko H. (81m:93022)
- Zucker, Steven M. Hodge theory with degenerating coefficients. L_2 cohomology in the Poincaré metric. (81a:14002)

14D22 Fine structure of moduli spaces

- Narasimhan, M. S. (with Ramanan, S.) Geometry of Hecke cycles. I. 81b:14003
- Ramanan, S. See Narasimhan, M. S., 81b:14003

secondary classifications:

- Newstead, P. E. The fundamental group of a moduli space of bundles on P^2 . (81k:14017)
- Thomirov, A. S. A four-dimensional family of quadrics and a monad. (Russian) (81c:14011)
- Umemura, Hiroshi Moduli spaces of the stable vector bundles over abelian surfaces. (81c:14008)

14D25 Geometric invariants [See also 14L30.]

- Berndt, Rolf Invariante Differentiale bei der Operation einer endlichen zyklischen Gruppe. 81h:14009
- Gieseker, D. Some applications of geometric invariant theory to moduli problems. 81c:14007
- Kempf, George R. Some quotient surfaces are smooth. 81m:14009
- Morrison, Ian Projective stability of ruled surfaces. 81c:14007
- Ness, Linda Mumford's numerical function and stable projective hypersurfaces. 81c:14008

secondary classifications:

- Almkvist, Gert Invariants, mostly old ones. (81j:14029)
- Białynicki-Birula, Andrzej On algebraic actions of $SL(2)$. (Russian summary) (81b:14027)
- Dimca, Alexandru On the algebraic structures and the automorphism groups of the nonsingular projective hypersurfaces. (81h:14008)
- Huffman, W. Cary Polynomial invariants of finite linear groups of degree two. (81g:15033)
- Itaka, Shigeru Algebra and geometry—classification and enumeration of algebraic varieties. II. (Japanese) (81c:14020)
- Konarski, Jerzy Decompositions of normal algebraic varieties determined by an action of a one-dimensional torus. (Russian summary) (81b:14026)
- Magid, Andy R. Separated G_m -actions. (81c:14027)
- Popov, V. L. On Hilbert's theorem on invariants. (Russian) (81e:14029)

14D99 None of the above, but in this section

secondary classifications:

- Cox, David A. (with Zucker, Steven M.) Intersection numbers of sections of elliptic surfaces. (81i:14023)
- Itaka, Shigeru On logarithmic $K3$ surfaces. (81c:14020)
- Lundt, O. A. A generalized trisecant lemma. (81f:14019)
- Zucker, Steven M. See Cox, David A., (81i:14023)

14Exx Mappings and correspondences

14E05 Rational maps, birational correspondences

- Danilov, V. I. Decomposition of some birational morphisms. (Russian) 81h:14010
- Greco, Silvio On the theory of branches. 81h:14011
- Gurevitch, E. S. Obtaining a quadratic transformation of P_3 by means of a transformation of a hypernet of lines in P_4 . (Russian) 81f:14006
- Mollov, Stojan On the properties of a three-dimensional surface of second order in the four-dimensional projective space P^4 . (Bulgarian. Russian and English summaries) 81k:14010a
Representation of the four-dimensional projective space on a plane with the aid of a three-dimensional surface of second degree. (Bulgarian. Russian and English summaries) 81k:14010b
- Mori, Shigefumi Projective manifolds with ample tangent bundles. 81j:14010
- Ueno, Kenji On algebraic fibre spaces of abelian varieties. 81d:14012
- Umemura, Hiroshi Sur les sous-groupes algébriques primitifs du groupe de Cremona à trois variables. 81k:14011

secondary classifications:

- Bottema, Oene Eine kubische Nullkorrelation. (Serbo-Croatian summary) (81g:51016)
- Itaka, Shigeru Weierstrass forms associated with linear systems. (81c:14003)
- Miyajishi, Masayoshi ★Curves on rational and unirational surfaces. (81f:14001)

14E07 Structure of Cremona group and generalizations

secondary classifications:

- Jagiev, A. V. Endomorphisms of free algebras. (Russian) (81d:08005)

14E10 General correspondences

- Petrov, L. K. On a stratifiable Cremona involution J_7 in R_7 . (Bulgarian. Russian and English summaries) 81k:14012a
A stratifiable Cremona involution J_5 in the plane. (Bulgarian. Russian and English summaries) 81k:14012b
Stratifiable Cremona involution I_2 in P_4 . (Bulgarian. Russian and English summaries) 81k:14012c

secondary classifications:

- Itaka, Shigeru Algebra and geometry—classification and enumeration of algebraic varieties. II. (Japanese) (81c:14020)
- Miyajishi, Masayoshi Analytic irreducibility of certain curves on a nonsingular affine rational surface. (81i:14005)

14E15 Global theory of singularities, resolution [See also 14B05, 32C45.]

- Mount, Kenneth R. (with Villamayor, Orlando E.) Sur les nombres de Thom-Boardman et les transformations monoidales. (English summary) 81i:14006
- Singh, Balwant Relations between certain numerical characters of singularities. 81m:14010
- Villamayor, Orlando E. See Mount, Kenneth R., 81i:14006
- Zariski, Oscar A new proof of the total embedded resolution theorem for algebraic surfaces (based on the theory of quasi-ordinary singularities). 81b:14004

secondary classifications:

- Arnon, Dennis A cellular decomposition algorithm for semialgebraic sets. (81h:68019)
- Danilov, V. I. Decomposition of some birational morphisms. (Russian) (81h:14010)
- Hironaka, Heisuke On Zariski dimensionality type. (81m:14006)
- Zariski, Oscar Foundations of a general theory of equisingularity on r -dimensional algebraic and algebraic varieties, of embedding dimension $r+1$. (81m:14005)

14E20 Coverings, fundamental group

- Gaffney, Terence (with Lazarsfeld, Robert) On the ramification of branched coverings of P^2 . 81h:14012
- Lazarsfeld, Robert See Gaffney, Terence, 81h:14012
- Yann, Hsi Shih Branched covering spaces. 81g:14006

secondary classifications:

- Reid, Miles w_1 for surfaces with small K^2 . (81j:14018)

14E22 Ramification problems [See also 12B10.]

- Lazarsfeld, Robert A Barth-type theorem for branched coverings of projective space. 81g:14007

14E25 Imbeddings

- Altman, Allen B. See Kleiman, Steven L., 81i:14007
- Kleiman, Steven L. (with Altman, Allen B.) Bertini theorems for hypersurface sections containing a subscheme. 81i:14007
- Miyajishi, Masayoshi Analytic irreducibility of certain curves on a nonsingular affine rational surface. 81i:14008
- Nori, M. V. Varieties with no smooth embeddings. 81a:14003

secondary classifications:

Gizatullin, M. H. *G*-projectivity of rational *G*-surface. (Russian) (81g:14016)

14E30 Minimal models

14E35 Results in dimension ≤ 3

secondary classifications:

(Miyake, Katsuya) See Oda, Tadao, (81e:14001)

Oda, Tadao ★ Torus embeddings and applications. (81e:14001)

14E40 Local structure of maps: étale, flat, etc. [See also 13--XX, 14B25.]

secondary classifications:

Ferrand, Daniel Set-theoretical complete intersections in characteristic $p > 0$. (81d:14026)

14E99 None of the above, but in this section

Francia, Paolo Some remarks on minimal models. I. (81h:14013)

Gerónimo, Stefano On cubic transformations of orders (1, 1, 3) of first degree between 3 projective spaces. (Italian) (81b:14005)

secondary classifications:

Arnold, V. I. Indexes of singular points of 1-forms on manifolds with boundary, convolutions of invariants of groups generated by reflections, and singular projections of smooth surfaces. (Russian) (81e:58041)

Roberts, Joel Some properties of double point schemes. (81k:14044)

14Fxx Cohomology theory [See also 13Dxx.]

14F05 Vector bundles, sheaves, related constructions [See also 18F20, 46M20.]

Andersen, Henning Haahr The Frobenius morphism on the cohomology of homogeneous vector bundles on G/B . (81h:14009)
The strong linkage principle. (81b:14006)

Benedetti, Riccardo (with Tognoli, Alberto) On real algebraic vector bundles. (French summary) (81e:14009)

Bogomolov, F. A. Unstable vector bundles and curves on surfaces. (81k:14013)

Brinzănescu, Vasile Vector bundles on algebraic varieties. Hilbert-Samuel polynomials relative to proper morphisms. (Romanian. English summary) (81m:14012)

Čerednik, I. V. Some S -matrices connected with abelian varieties. (Russian) (81d:14013)

Drinfel'd, V. G. (with Manin, Ju. I.) Instantons and sheaves on CP^3 . (Russian) (81b:14007)

Elençwajg, Georges (with Hirschowitz, André; Schneider, Michael) Les fibres uniformes de rang au plus n sur $P_n(C)$ sont ceux qu'on croit. (81k:14015)

Forster, O. (with Hirschowitz, André; Schneider, Michael) Type de scindage généralisé pour les fibrés stables. (81k:14016)

Fujita, Takao On semipositive line bundles. (81m:14013)

Gieseker, D. On the moduli of vector bundles on an algebraic surface. (81h:14014)

Haboush, W. J. A short proof of the Kempf vanishing theorem. (81g:14008)

Hartshorne, Robin Algebraic vector bundles on projective spaces, with applications to the Yang-Mills equation. (81e:14010)

Algebraic vector bundles on projective spaces: a problem list. (81m:14014)

Hirschowitz, André See Elençwajg, Georges; et al., (81k:14015 and Forster, O.; et al., (81k:14016)

Ishimura, Sadao On π -uniform vector bundles. (81a:14004)

Kempf, George R. Some elementary proofs of basic theorems in the cohomology of quasicohherent sheaves. (81m:14015)

Lange, Herbert On vector bundles of rank 2 on the projective plane. (81g:14009)

Leksin, V. P. Fuchsian representations of a fundamental group of a complex manifold. (Russian) (81f:14007)

Manin, Ju. I. See Drinfel'd, V. G., (81b:14007 and Drinfel'd, V. G., (81k:14014)

Marinari, M. G. (with Raimondo, Mario) Vector bundles over algebraic varieties defined over algebraically nonclosed fields. (Italian. English summary) (81a:14005)

Maruyama, Masaki Boundedness of semistable sheaves of small ranks. (81h:14015)

Mehta, V. B. (with Seshadri, C. S.) Moduli of vector bundles on curves with parabolic structures. (81e:14010)

Newstead, P. E. The fundamental group of a moduli space of bundles on P^3 . (81k:14017)

Raimondo, Mario See Marinari, M. G., (81a:14005)

Ramanan, S. Vector bundles over algebraic curves. (81i:14011)

Sato, Ei-ichi The decomposability of an infinitely extendable vector bundle on the projective space. II. (81i:14012)

On infinitely extendable vector bundles on G/P . (81i:14013)

Schneider, Michael Holomorphic vector bundles on P_n . (81g:14010)

Chernklassen semi-stabiler Vektorraumbündel vom Rang 3 auf dem

komplex-projektiven Raum. (81f:14008)

See also Elençwajg, Georges; et al., (81k:14015 and Forster, O.; et al., (81k:14016)

Seshadri, C. S. Desingularisation of the moduli varieties of vector bundles on curves. (81g:14011)

See also Mehta, V. B., (81i:14010)

Spindler, Heinz Der Satz von Grauert-Mülich für beliebige semistabile holomorphe Vektorbündel über dem n -dimensionalen komplex-projektiven Raum. (81b:14008)

Stuhler, Ulrich Unterbündel maximalen Grades von Vektorbündeln auf algebraischen Kurven. (English summary) (81f:14009)

Suslin, A. A. On the triviality of some cohomology groups. (Russian) (81g:14012)

Timofirov, A. S. A four-dimensional family of quadrics and a monad. (Russian) (81e:14011)

Tjurin, A. N. Periods of quadratic differentials. (Russian) (81b:14009)

Tognoli, Alberto See Benedetti, Riccardo, (81e:14009)

Umemura, Hiroshi Moduli spaces of the stable vector bundles over abelian surfaces. (81c:14008)

Villamayor, Orlando On the terrible points. (See 80c:00010b)

secondary classifications:

Atiyah, Michael ★ Geometry on Yang-Mills fields. (81a:81047)

Geometrical aspects of gauge theories. (81i:81066)

Berezin, F. A. Instantons and Grassmann manifolds. (Russian) (81a:53032)

Bunge, Marta Stack completions and Morita equivalence for categories in a topos. (81f:13018)

Cline, Edward (with Parshall, Brian; Scott, Leonard) Induced modules and extensions of representations. II. (81f:20051)

Drinfel'd, V. G. (with Manin, Ju. I.) Yang-Mills fields, instantons, tensor products of instantons. (81d:81050)

Elençwajg, Georges (with Forster, O.) Bounding cohomology groups of vector bundles on P_n . (81h:32035)

Forger, M. Gauge theories, instantons and algebraic geometry. (81i:81056)

Forster, O. See Elençwajg, Georges, (81h:32035)

Griffith, Walter Lawrence, Jr. Cohomology of flag varieties in characteristic p . (81j:14032)

Hitchin, N. J. Linear field equations on self-dual spaces. (81i:81057)

Hori, Samuel A. A generalization of the Gysin homomorphism for flag bundles. (81g:14002)

Madore, J. (with Richard, J. L.; Stora, R.) $F \rightarrow F$, a review. (81d:81055)

Manin, Ju. I. See Drinfel'd, V. G., (81d:81050)

Miller, Matthew Self-duality of rank-2 reflexive modules. (81g:13008)

Milnevoi, Tomaso (with Veluscek, Antonio) The extension property in Noetherian rings. (Italian. English summary) (81a:13012)

Narasimhan, M. S. (with Ramanan, S.) Geometry of Hecke cycles. I. (81b:14003)

Okonek, Christian (with Schneider, Michael; Spindler, Heinz) ★ Vector bundles on complex projective spaces. (81b:14001)

Palleschi, Marino Divisors of the first kind of a nonsingular algebraic variety. I. (Italian. English summary) (81d:14009a)

Divisors of the first kind of a nonsingular algebraic variety. II. (Italian. English summary) (81d:14009b)

Parshall, Brian See Cline, Edward; et al., (81f:20051)

Ramanan, S. See Narasimhan, M. S., (81b:14003)

Ramanathan, A. Moduli for principal bundles. (81c:14006)

Rawnsley, J. H. Self-dual Yang-Mills fields. (81g:53054)

Richard, J. L. See Madore, J.; et al., (81d:81055)

Schaffly, Roger Universal connections. (81f:53022)

Schneider, Michael See Okonek, Christian; et al., (81b:14001)

Scott, Leonard See Cline, Edward; et al., (81f:20051)

Spindler, Heinz See Okonek, Christian; et al., (81b:14001)

Stora, R. See Madore, J.; et al., (81d:81055)

Switzer, R. M. Rank 2 bundles over P^n and the e -invariant. (81c:55022)

Treger, Robert Reflexive modules. (81i:13005)

Veluscek, Antonio See Milnevoi, Tomaso, (81a:13012)

Verschoren, A. A note on strictly local kernel functors. (81d:18019)

Witten, Edward Some comments on the recent twistor space constructions. (81h:81077)

14F07 Weierstrass points in one and several variables; gap sheaves

Itaka, Shigeru Symmetric forms and Weierstrass semigroups. (81e:14012)

secondary classifications:

Lax, R. F. On images and inverse images of Weierstrass points. (81a:32023)

Madan, Manohar L. See Valentini, Robert C., (81j:14015)

Mihal, Alexandru A generalization of Weierstrass points. (Romanian. French summary) (81j:30075)

Valentini, Robert C. (with Madan, Manohar L.) Weierstrass points in characteristic p . (81j:14015)

Wald, Rolf Zur Konstruktion von Weierstrasspunkten mit vorgegebener Halbgruppe. (English summary) (81i:14013)

14F10 Differentials and other special sheaves

Baldassarri Ghezzi, Santuzza A reducible model for the direct sum of a given locally free \mathcal{O} -module, with $\mathcal{O} \in \mathcal{P}(\mathcal{E})$. (Italian) (81e:14013)

Beilinson, A. A. Residues and adeles. (Russian) (81f:14010)

Beltrametti, Mauro (with Francia, Paolo) Some remarks on the cohomology of an invertible sheaf. (81b:14010)

Francia, Paolo See Beltrametti, Mauro, (81b:14010)

secondary classifications:

Berndt, Rolf Invariante Differentiale bei der Operation einer endlichen zyklischen Gruppe. (81h:14009)

Bulm, Alexandru On algebras with projective modules of differentials. (Romanian. English summary) (81k:13001)

Valabrega, Paolo Errata: "P-morphisms and prolongation of sheaves" [Rend. Sem. Mat. Univ. Politec. Torino 36 (1977/78), 313-330 (1979); MR 80k:14002]. (Italian) (81f:14002)

14F12 Riemann-Roch problems [See mainly 14C40, also 32L10, 57R20.]

Raynaud, Michel Contre-exemple au "vanishing theorem" en caractéristique $p > 0$. 81b:14011

secondary classifications:

Matsumura, T. On polarized varieties of dimension 3. I. (81d:14010)

14F15 Serre cohomology, K -theory [See also 13D15, 18F25.]

Fujita, Takao On topological characterizations of complex projective spaces and affine linear spaces. 81m:14016

Orecchia, Ferruccio On the groups SK_0 and NK_0 of some affine surfaces. (Italian. English summary) 81k:14018

secondary classifications:

Morris, Robert A. Derivations of Witt vectors with application to K_2 of truncated polynomial rings and Laurent series. (81i:18012)

14F20 Grothendieck cohomology and topology [See also 18F10.]

Breen, Lawrence Extensions du groupe additif. 81f:14011

Kleiman, Steven L. Relative duality for quasicoherent sheaves. 81m:14017

Tolpygo, A. K. Two-dimensional cohomology and the spectral sequence in the nonabelian theory. (Russian) 81m:14018

secondary classifications:

Boutot, Jean-François ★Schéma de Picard local. (French) [Local Picard schema] (81j:14008)

Cox, David A. Homotopy theory of simplicial schemes. (81b:14012)
Spherical fibrations in algebraic geometry. (81b:14013)

(Grothendieck, Alexandre) See Malgouire, Jean; et al., (81m:57005)

Hoobler, Raymond T. A cohomological interpretation of Brauer groups of rings. (81j:13003)

Lang, William E. On the Euler number of algebraic surfaces in characteristic p . (81j:14017)

Malgouire, Jean (with Voisin, Christine) ★Factorisation de Stein topologique; découpe. (French) [Topological Stein factorization; cutting] (81m:57005)

Milne, James S. ★Étale cohomology. (81j:14002)

Rector, D. L. Homotopy theory of rigid profinite spaces. I. (81k:55009)

Reyes, Gonzalo E. Théorie des modèles et faisceaux. (81f:03050)

Cramer's rule in the Zariski topologies. (81e:03063)

Strickland, Elisabeth The real Brauer group of a finite CW-complex. (81i:55016)

Voisin, Christine See Malgouire, Jean, (81m:57005)

Wraith, Gavin C. Generic Galois theory of local rings. (81c:13004)

14F25 Classical real and complex cohomology

Lamotte, Klaus The topology of complex projective varieties after S. Lefschetz. 81m:14019

secondary classifications:

Lazarsfeld, Robert A Barth-type theorem for branched coverings of projective space. (81g:14007)

Sommese, Andrew John Complex subspaces of homogeneous complex manifolds. I. Transplanting theorems. (81b:32034)

14F30 p -adic cohomology, crystalline cohomology

Bloch, Spencer Algebraic K -theory and crystalline cohomology. 81j:14011

Illusie, Luc Complexe de de Rham-Witt. 81j:14012

Katz, Nicholas M. Slope filtration of F -crystals. 81i:14014

Ogus, Arthur F -crystals and Griffiths transversality. 81i:14015

secondary classifications:

Badr, Abdullah Déformations des p -groupes finis commutatifs sur un corps parfait et filtration de Hodge. (English summary) (81k:14036)

Bloch, Spencer Some formulas pertaining to the K -theory of commutative group-schemes. (81h:14007)

Christol, Gilles Introduction aux travaux de Dwork. (81d:14014)

Ogus, Arthur Supersingular $K3$ crystals. (81e:14024)

14F35 Homotopy theory

Cox, David A. Homotopy theory of simplicial schemes. 81b:14012
Spherical fibrations in algebraic geometry. 81b:14013

secondary classifications:

Friedlander, Eric M. The infinite loop Adams conjecture via classification theorems for \mathbb{F}_p -spaces. (81b:55023)

Karjanevskas, K. K. Homotopy properties of algebraic sets. (Russian. English summary) (81e:14014)

Wilkerson, Clarence Errata: "Applications of minimal simplicial groups" [Topology 15 (1976), no. 2, 111-130; MR 53 #6551]. (81d:55016)

14F40 de Rham cohomology [See also 14C30, 32C35, 32L10.]

secondary classifications:

Turhanov, N. N. Formula and estimates for solutions of the equation $du=f$ in a domain and on the boundary of a domain. (Russian) (81k:32017)

14F45 Topological properties

Karjanevskas, K. K. Homotopy properties of algebraic sets. (Russian. English summary) 81e:14014

secondary classifications:

Aznar, Vicente Navarro On the Chern classes and the Euler characteristic for nonsingular complete intersections. (81m:57016)

Chang, Hai Ch'ao On two classical facts by Zariski and van Kampen. (81f:14016)

Gurjar, R. V. Topology of affine varieties dominated by an affine space. (81m:14029)

Rohlin, V. A. Complex topological characteristics of real algebraic curves. (Russian) (81m:14024)

Yuan, Hsi Shih The fundamental group of the residual space of a curve in an algebraic surface. (81f:14018)

14F99 None of the above, but in this section

Strano, Rosario The Brauer group of a scheme. (Italian) 81f:14012

14Gxx Special ground fields, arithmetic problems (For complex multiplication, see 10D25, 14K22. For automorphic and modular functions and forms, see also 10Dxx, 14K15.)

14G05 Rationality questions

Balmakov, M. I. (with Čistov, A. L.) Rationality of a class of tori. (Russian) 81e:14009

Cernousov, V. I. See Platonov, V. P., 81k:14019

Čistov, A. L. See Balmakov, M. I., 81e:14009

Colliot-Thélène, Jean-Louis (with Sansuc, J.-J.) Fibrés quadratiques et composantes connexes réelles. 81c:14010

Platonov, V. P. (with Černousov, V. I.) On the rationality of canonical Spin varieties. (Russian) 81k:14019

Sansuc, J.-J. See Colliot-Thélène, Jean-Louis, 81c:14010

secondary classifications:

Bartz, H. (with Fischer, Klaus G.; Folz, H.; Zimmer, Horst Günter) Some computations related to torsion points on elliptic curves over number fields. (81m:14001)

Colliot-Thélène, Jean-Louis (with Coray, Daniel) L'équivalence rationnelle sur les points fermés des surfaces rationnelles fibrées en coniques. (81d:14008)

Coray, Daniel See Colliot-Thélène, Jean-Louis, (81d:14008)

Fischer, Klaus G. See Bartz, H.; et al., (81m:14001)

Folz, H. See Bartz, H.; et al., (81m:14001)

Rouquette, Peter Altes und Neues aus der Diophantischen Geometrie. (81g:14001)

Sprindžuk, V. G. Hilbert's irreducibility theorem and rational points on algebraic curves. (Russian) (81b:12025)

Zimmer, Horst Günter See Bartz, H.; et al., (81m:14001)

14G10 Zeta functions and related questions [See also 12A70, 12B30.]

Bellinson, A. A. Higher regulators and values of L -functions of curves. (Russian) 81k:14020

Costes, John The arithmetic of elliptic curves with complex multiplication. 81c:14011

secondary classifications:

Christol, Gilles Introduction aux travaux de Dwork. (81d:14014)

Sperber, Steven I. On the L -functions associated with certain exponential sums. (81m:12022)

14G13 Weil-Tate conjectures [See also 14Cxx.]

Oda, Takayuki A note on the Tate conjecture for $K3$ surfaces. 81j:14013

secondary classifications:

Koblitz, Neal The p -adic approach to solutions of equations over finite fields. (81d:10002)

Stepanov, S. A. On the proof of the Davenport-Hasse relations. (Russian) (81g:10055)

14G15 Finite ground fields

Bedeochi, Edmondo Elliptic cubics over \mathbb{F}_p . (Italian. English summary) 81h:14016

secondary classifications:

Ihara, Yasutaka Congruence relations and Shimura curves. (81h:10039a)

14G20 p -adic ground fields (local fields)

Christol, Gilles Introduction aux travaux de Dwork. 81d:14014

Herrlich, Frank The automorphisms of p -adic Schottky curves of genus 2. 81h:14017

- Morita, Yasuo On the induced h -structure on an open subset of the rigid analytic space $P^1(k)$. **81b:14014**
 Robba, Philippe Factorisation d'un opérateur différentiel. III. **81k:14021**

secondary classifications:

- Andrić, V. I. Distinguishing the class of general local fields with residue field of characteristic zero for which the Tate-Safarevič pairing in elliptic curves is nondegenerate from the left. (Russian. English summary) **(81a:14020a)**
 Baldassarri, F. (with Dwork, B.) On second order linear differential equations with algebraic solutions. **(81d:34002)**
 Bertrand, Daniel (with Flicker, Yuval Z.) Linear forms on abelian varieties over local fields. **(81k:10056)**
 Dwork, B. (with Robba, Philippe) Effective p -adic bounds for solutions of homogeneous linear differential equations. **(81k:12022)**
 See also Baldassarri, F., **(81d:34002)**
 Flicker, Yuval Z. See Bertrand, Daniel, **(81k:10056)**
 Grunewald, Fritz J. (with Helling, H.; Mennicke, Jens L.) SL_2 over complex quadratic number fields. I. **(81e:10021)**
 Helling, H. See Grunewald, Fritz J.; et al., **(81e:10021)**
 Herrlich, Frank Die Ordnung der Automorphismengruppe einer p -adischen Schotkykurve. **(81f:14015)**
 Ihara, Yasutaka Congruence relations and Shimura curves. II. **(81h:10039b)**
 Illusie, Luc Complexe de de Rham-Witt. **(81j:14012)**
 Katz, Nicholas M. Slope filtration of F -crystals. **(81i:14014)**
 Mennicke, Jens L. See Grunewald, Fritz J.; et al., **(81e:10021)**
 Ogus, Arthur F -crystals and Griffiths transversality. **(81i:14015)**
 van der Put, M. Discontinuous groups. **(81d:10023)**
 Robba, Philippe Prolongement algébrique et équations différentielles. **(81d:12014)**
 See also Dwork, B., **(81k:12022)**
 Serre, Jean-Pierre Groupes algébriques associés aux modules de Hodge-Tate. **(81j:14027)**
 Tapia-Recillas, Horacio Ultrametric theta functions and abelian varieties. **(81m:10054)**

14G25 Global ground fields

- Abramov, S. A. (with Rozenbljum, M. Ju.) Approximate calculation of the first term of the Taylor expansion at 1 of the canonical L -function of Weil curves. (Russian) **81e:14015**
 Donal, Jean-Claude Principe de Hasse pour le H^1 . (English summary) **81e:14016**
 Néron, André Hauteurs et fonctions θ . (English summary) **81k:14022**
 Rozenbljum, M. Ju. See Abramov, S. A., **81e:14015**
 Sprindžuk, V. G. Reducibility of polynomials and rational points on algebraic curves. (Russian) **81m:14020**
 Tena Ayuso, Juan G. Rational subgroups over elliptic curves. (Spanish) **81m:14021**
 Vêta, Jacques Sur un théorème de D. Rohrlich. (English summary) **81f:14013**
 Vvedenskii, O. M. The Artin effect in abelian varieties. (Russian) **81i:14016**
 Zimmer, Horst Günter Torsion points on elliptic curves over a global field. **81a:14018**

secondary classifications:

- Bloch, Spencer A note on height pairings, Tamagawa numbers, and the Birch and Swinnerton-Dyer conjecture. **(81m:14030)**
 Bogomolov, F. A. Sur l'algébricité des représentations l -adiques. (English summary) **(81e:14025)**
 Points of finite order on abelian varieties. (Russian) **(81m:14031)**
 Cox, David A. (with Zucker, Steven M.) Intersection numbers of sections of elliptic surfaces. **(81i:14023)**
 Deligne, Pierre Variétés de Shimura: interprétation modulaire, et techniques de construction de modèles canoniques. **(81i:10032)**
 Hazama, Fumio On the Mordell-Weil group of certain elliptic curve. **(81a:14016)**
 Imai, Hideo On the rational points of some Jacobian varieties over large algebraic number fields. **(81f:14024)**
 Inose, Hiroshi Defining equations of singular $K3$ surfaces and a notion of isogeny. **(81h:14021)**
 Ishii, Noburo Rational points on canonical models of principal congruence subgroups. **(81j:14023)**
 Kenku, M. A. The modular curve $X_0(169)$ and rational isogeny. **(81m:10048)**
 Kohn, Peter George \star Hecke operators on $\Gamma^*(N)$ and their traces. **(81k:10039)**
 Lang, Serge \star Elliptic curves: Diophantine analysis. **(81b:10009)**
 Platov, V. P. (with Rapinčuk, A. S.) On the group of rational points of three-dimensional groups. (Russian) **(81a:12014)**
 Rapinčuk, A. S. See Platov, V. P., **(81a:12014)**
 Schanuel, Stephen Hoel Heights in number fields. (French summary) **(81e:12025)**
 Szpiro, L. Sur le théorème de rigidité de Parsin et Arakelov. **(81f:14004)**
 Thomas, Emery (with Vasquez, A. T.) On the resolution of cusp singularities and the Shintani decomposition in totally real cubic number fields. **(81h:10037)**
 Turner, Stuart Principal polarizations of abelian surfaces over finite fields. **(81b:14022)**
 Van der Poorten, Alfred J. The polynomial $x^3 + x^2 + x - 1$ and elliptic curves of conductor 11. **(81i:10021)**
 Vasquez, A. T. See Thomas, Emery, **(81h:10037)**
 Vvedenskii, O. M. The possibility of constructing duality in elliptic curves over global and quasiglobal fields. (Russian) **(81b:14020)**
 Zucker, Steven M. See Cox, David A., **(81i:14023)**

14G30 Real ground fields [See also 32C05. Must also be assigned at least one other number referring to the specific type of problem considered.]

- Bochnak, Jacek (with Efroymsen, Gustave) Real algebraic geometry and the 17th Hilbert problem. **81k:14023**

- Brückner, Ludwig Reelle Divisoren. **81j:14014**
 Efroymsen, Gustave See Bochnak, Jacek, **81k:14023**
 Vitulli, Marie A. Complete intersections in C^n and R^{2n} . **81c:14012**

secondary classifications:

- Brumfiel, Gregory W. \star Partially ordered rings and semi-algebraic geometry. **(81e:55029)**
 Jaffee, Harris Real algebraic curves. **(81d:14019)**
 Marinari, M. G. (with Raimondo, Mario) Vector bundles over algebraic varieties defined over algebraically nonclosed fields. (Italian. English summary) **(81a:14005)**
 Natanzon, S. M. On the total number of ovals of four complex-isomorphic real algebraic curves. (Russian) **(81k:14031)**
 Raimondo, Mario See Marinari, M. G., **(81a:14005)**
 Rohlin, V. A. Complex topological characteristics of real algebraic curves. (Russian) **(81m:14024)**
 Viro, O. Ja. Construction of multicomponent real algebraic surfaces. (Russian) **(81d:14024)**
 Zvonilov, V. I. Strengthened Petrovskii and Arnol'd inequalities for curves of odd degree. (Russian) **(81d:14018)**

14G99 None of the above, but in this section

- Vêta, Jacques Le groupe cuspidal des courbes de Fermat. **81k:14024**

secondary classifications:

- Geramita, A. V. (with Weibel, Charles A.) Principal ideals and smooth curves. **(81i:14021)**
 Haris, S. J. Number theoretical developments arising from the Siegel formula. **(81a:12015)**
 Weibel, Charles A. See Geramita, A. V., **(81i:14021)**

14Hxx Curves

14H05 Algebraic functions [See also 14K20, 32G20.]

- Baldassarri, F. On second-order linear differential equations with algebraic solutions on algebraic curves. **81k:14025**
 Madan, Manohar L. See Valentini, Robert C., **81j:14015**
 Stichtenoth, Henning Die Hasse-Witt-Invariante eines Kongruenzfunktionenkörpers. **81d:14015**
 Valentini, Robert C. (with Madan, Manohar L.) Weierstrass points in characteristic p . **81j:14015**

14H10 Families, moduli (algebraic)

- (Bacławski, Ken) See Brylinski, Jean-Luc, **81f:14014**
 Brylinski, Jean-Luc Propriétés de ramification à l'infini du groupe modulaire de Teichmüller. **81f:14014**
 Harthorne, Robin On the classification of algebraic space curves. **81m:14022**
 Moret-Bailly, Laurent Polarisation de degré 4 sur les surfaces abéliennes. (English summary) **81i:14017**

secondary classifications:

- Cherenack, Paul Internal hom-sets in an extension of affine schemes over a field. **(81c:14002)**
 Stanley, Richard P. Invariants of finite groups and their applications to combinatorics. **(81a:20015)**
 Szpiro, L. Sur le théorème de rigidité de Parsin et Arakelov. **(81f:14004)**
 Tjurin, A. N. Periods of quadratic differentials. (Russian) **(81b:14009)**

14H15 Families, moduli (analytic) [See also 30F10, 32G15, 32G20.]

- Kurihbayashi, Akikazu (with Sekita, Eitaro) On a family of Riemann surfaces. I. **81i:14018**
 (with Moriya, Ryoji) On the Weierstrass points of Riemann surfaces defined by the equation $Y^3 = X(X-1)(X-t_1)(X-t_2)$. **81j:14016**
 Moriya, Ryoji See Kurihbayashi, Akikazu, **81j:14016**
 Sekita, Eitaro See Kurihbayashi, Akikazu, **81i:14018**
 Tjurin, A. N. Generalization of the Weierstrass P -function and the moduli variety of marked Riemann surfaces. (Russian) **81b:14015**

secondary classifications:

- Buchwitz, Ragnar-Olaf (with Greuel, Gert-Martin) The Milnor number and deformations of complex curve singularities. **(81j:14007)**
 Glass, J. P. Bitangents of plane quartics. **(81a:14008)**
 Greuel, Gert-Martin See Buchwitz, Ragnar-Olaf, **(81j:14007)**
 Keen, L. (with Rauch, Harry E.; Vasquez, A. T.) Moduli of punctured tori and the accessory parameter of Lamé's equation. **(81j:30074)**
 Masur, Howard The Jenkins-Strebel differentials with one cylinder are dense. **(81b:30081)**
 Rauch, Harry E. See Keen, L.; et al., **(81j:30074)**
 Sato, Hiroki On augmented Schottky spaces and automorphic forms. I. **(81b:32009)**
 Vasquez, A. T. See Keen, L.; et al., **(81j:30074)**

14H20 Singularities, local rings [See also 13Hxx.]

- Ephraïm, R. (with Kulkarni, R. S.) Combinatorial embeddings of surfaces as complex algebraic curves. **81a:14007**

Gattazzo, Remo Points of type 9 on an elliptic cubic. (Italian. English summary)

81h:14018

Kulkarni, R. S. See Ephraim, R., 81a:14007

Orecchia, Ferruccio The conductor of curves with reduced tangent cone. 81a:14006

Wajnryb, Bronisław On the monodromy group of plane curve singularities. 81d:14016

Waldi, Rolf Zur Konstruktion von Weierstrasspunkten mit vorgegebener Halbgruppe. (English summary) 81c:14013

Washburn, Sherwood On the moduli of plane curve singularities. I. 81c:14017

Yoshitaka, Hisao A problem concerning rational plane curves. (Japanese) 81i:14019

secondary classifications:

Gerritzen, Lothar On the Jacobian variety of a p -adic Schottky curve. (81m:30050)

Lütkebohmert, Werner Affine curves in characteristic p . (81h:14029)

Morales, Marcelo Le polynôme de Hilbert-Samuel associé à la filtration par les clôtures intégrales des puissances de l'idéal maximal pour une courbe plane. (English summary) (81h:32014)

Oka, Mutsuo (with Sakamoto, Koichi) Product theorem of the fundamental group of a reducible curve. (81h:14019)

Randell, Richard Some topology of Zariski surfaces. (81k:14028)

Roberts, Leslie G. An example of a decreasing Hilbert function. (81j:13025)

Sakamoto, Koichi See Oka, Mutsuo, (81h:14019)

Zjuzin, Ju. V. An example of an algebraic curve in \mathbb{C}^2 , such that its complement has fundamental group with elements of finite order. (Russian) (81d:57001)

14H25 Arithmetic ground fields [See also 10Bxx, 14Gxx.]

Schwartz, Charles F. The group of rational solutions of $y^2 = x(x-1)(x-t^2-c)$. 81c:14014

secondary classifications:

Fried, Michael Galois groups and complex multiplication. (81c:14015)

Gerritzen, Lothar Unbeschränkte Steinische Gebiete von P_1 und nichtarchimedische automorphe Formen. (81h:10040)

Keedwell, Anthony Donald When is a (k, n) -arc of $PG(2, q)$ embeddable in a unique algebraic plane curve of order n ? (French summary) (81g:51006)

Vélu, Jacques Sur un théorème de D. Rohrlich. (English summary) (81f:14013)

14H30 Coverings, fundamental group

Fried, Michael Galois groups and complex multiplication. 81c:14015

Herrlich, Frank Die Ordnung der Automorphismengruppe einer p -adischen Schottkykurve. 81f:14015

Kato, Takao Weierstrass normal form of a Riemann surface and its applications. (Japanese) 81c:14018

Komiya, Kaname See Kuribayashi, Akikazu, 81c:14016

Kuribayashi, Akikazu (with Komiya, Kaname) On Weierstrass points and automorphisms of curves of genus three. 81c:14016

Oka, Mutsuo (with Sakamoto, Koichi) Product theorem of the fundamental group of a reducible curve. 81h:14019

Randell, Richard On the fundamental group of the complement of a singular plane curve. 81c:14017

Sakamoto, Koichi See Oka, Mutsuo, 81h:14019

secondary classifications:

Camuto, Giuseppe Double covers of curves in $G(2, 4)$. (81g:14013)

Dalajian, S. G. Towers of curves and Prym varieties. (Russian. Armenian and English summaries) (81d:14017)

Gattazzo, Remo Points of type 9 on an elliptic cubic. (Italian. English summary) (81h:14018)

May, Coy L. Maximal symmetry and fully wound coverings. (81g:14014)

Zjuzin, Ju. V. An example of an algebraic curve in \mathbb{C}^2 , such that its complement has fundamental group with elements of finite order. (Russian) (81d:57001)

14H35 Correspondences [See also 14Exx.]

Biondi, Paola (with Melone, Nicola) Projective generation of symmetric correspondences, with nonnegative valency, of an algebraic curve into itself. (Italian) 81i:14020

Chang, Hsi Ch'ao On two classical facts by Zariski and van Kampen. 81f:14016

Homma, Masaaki On the equations defining a projective curve embedded by a nonspecial divisor. 81f:14017

Melone, Nicola See Biondi, Paola, 81i:14020

Yuan, Hsi Shih The fundamental group of the residual space of a curve in an algebraic surface. 81f:14018

secondary classifications:

Kalta, S. C. Some symmetric groups of small degrees as automorphism groups of compact Riemann surfaces. (81d:20041)

Stuhler, Ulrich Unterbündel maximalen Grades von Vektorbündeln auf algebraischen Kurven. (English summary) (81f:14009)

14H40 Jacobians [See also 32G20.]

Dalajian, S. G. Towers of curves and Prym varieties. (Russian. Armenian and English summaries) 81d:14017

Geramita, A. V. (with Weibel, Charles A.) Principal ideals and smooth curves. 81i:14021

Weibel, Charles A. See Geramita, A. V., 81i:14021

secondary classifications:

McKean, H. P. Algebraic curves of infinite genus arising in the theory of nonlinear waves. (81d:58035)

van Moerbeke, Pierre About isospectral deformations of discrete Laplacians. (81g:58018)

Novikov, S. P. Periodic solitons and algebraic geometry. (81i:35140)

14H45 Special curves

Camuto, Giuseppe Double covers of curves in $G(2, 4)$. 81g:14013

Glass, J. P. Bitangents of plane quartics. 81a:14008

Gruen, Laurent (with Peskine, Christian) Genre des courbes de l'espace projectif. 81c:14019

Harris, Joseph The genus of space curves. 81i:14022

McKean, H. P. (with van Moerbeke, Pierre) Hill and Toda curves. 81h:14016

van Moerbeke, Pierre See McKean, H. P., 81h:14016

Peskine, Christian See Gruen, Laurent, 81c:14019

Quine, J. R. Plücker relations for $p(e^n)$. 81a:14009

Serpico, Maria Ezia An example of a 5-subcanonical curve that is not a complete intersection. (Italian. French and English summaries) 81h:14017

Zvonilov, V. I. Strengthened Petrovskii and Arnol'd inequalities for curves of odd degree. (Russian) 81d:14018

secondary classifications:

Date, Etsuro Quasiperiodic solutions of nonlinear equations of sine-Gordon type and fixed point free involutions of hyperelliptic curves. (81k:35140)

Ferrand, Daniel Set-theoretical complete intersections in characteristic $p > 0$. (81d:14026)

Gerritzen, Lothar On the Jacobian variety of a p -adic Schottky curve. (81m:30050)

Jaffee, Harris Real algebraic curves. (81d:14019)

Orecchia, Ferruccio The conductor of curves with reduced tangent cone. (81a:14006)

Schwartz, Charles F. The group of rational solutions of $y^2 = x(x-1)(x-t^2-c)$. (81c:14014)

14H99 None of the above, but in this section

Itaka, Shigeru Plücker-type relations. (Japanese) 81m:14023

Jaffee, Harris Real algebraic curves. 81d:14019

Laudal, O. A. A generalized trisecant lemma. 81f:14019

May, Coy L. Maximal symmetry and fully wound coverings. 81g:14014

Rohlin, V. A. Complex topological characteristics of real algebraic curves. (Russian) 81m:14024

Russell, Peter Hamburger-Noether expansions and approximate roots of polynomials. 81g:14015

secondary classifications:

Krĭčever, I. M. Commutative rings of ordinary linear differential operators. (Russian) (81d:47031)

Maurer, Joseph Puiseux expansion for space curves. (81m:32009)

McKean, H. P. Integrable systems and algebraic curves. (81g:58017)

Algebraic curves of infinite genus arising in the theory of nonlinear waves. (81d:58035)

Morrow, James A. (with Rossi, Hugo) Canonical embeddings. (81m:32033)

Natanzon, S. M. Lobačevskii geometry and automorphisms of complex M -curves. (Russian) (81m:30042)

Ross, Hugo See Morrow, James A., (81m:32033)

Sokolov, V. V. Birationally isomorphic commutative rings of differential operators. (Russian) (81f:47048)

Zvonilov, V. I. Strengthened Petrovskii and Arnol'd inequalities for curves of odd degree. (Russian) (81d:14018)

14Jxx Surfaces and higher-dimensional varieties

14J05 Picard group

secondary classifications:

Yuan, Hsi Shih The fundamental group of the residual space of a curve in an algebraic surface. (81f:14018)

14J10 Families, moduli, classification: algebraic theory

Beauville, Armand L'application canonique pour les surfaces de type général. 81m:14025

Catanese, Fabrizio Surfaces with $K^2 = p_g = 1$ and their period mapping. 81c:14018

Gizatullin, M. H. Rational G -surfaces. (Russian) 81d:14020

Itaka, Shigeru Algebra and geometry—classification and enumeration of algebraic varieties. II. (Japanese) 81c:14020

A numerical criterion of quasi-abelian surfaces. 81c:14019

On logarithmic $K3$ surfaces. 81c:14020

Kawamata, Yujiro On the classification of noncomplete algebraic surfaces. 81c:14021

Lang, William E. On the Euler number of algebraic surfaces in characteristic p . 81j:14017

Levasseur, Thierry Action du groupe additif, d'après M. Miyanishi. 81k:14026

Miyazaki, Masayoshi (with Sugie, Tohru) Affine surfaces containing cylinderlike open sets. 81i:14020

See also Levasseur, Thierry, 81k:14026

Persson, Ulf A family of genus two fibrations. 81a:14010

Reid, Miles π_1 for surfaces with small K^2 . 81j:14018

- Sakai, Fumio Canonical models of complements of stable curves. **81j:14019**
 Shah, Jayant Insignificant limit singularities of surfaces and their mixed Hodge structure. **81e:14021**
 Sugie, Tōru See Miyazaki, Masayoshi. **81h:14020**
 Viehweg, Eckart Classification theory of algebraic threefolds. **81a:14011**

secondary classifications:

- Bogomolov, F. A. Unstable vector bundles and curves on surfaces. **(81k:14013)**
 Mandelbaum, Richard Four-dimensional topology: an introduction. **(81j:57001)**
 Nikulin, V. V. Finite groups of automorphisms of Kählerian $K3$ surfaces. (Russian) **(81e:32033)**
 Raynaud, Michel Contre-exemple au "vanishing theorem" en caractéristique $p > 0$. **(81b:14011)**

14J15 Moduli, classification: analytic theory [See also 32J15.]

- Catanesi, Fabrizio The moduli and the global period mapping of surfaces with $K^2 = p_g = 1$: a counterexample to the global Torelli problem. **81k:14027**
 Chakiris, Kenneth N. Counterexamples to global Torelli for certain simply connected surfaces. **81d:14021**
 Kawamata, Yūjiro The Kodaira dimension of certain fiber spaces. **81e:14022**
 Uem, Sampel Local Torelli theorem for some nonsingular weighted complete intersections. **81m:14026**

secondary classifications:

- Looijenga, Eduard On quartic surfaces in projective 3-space. **(81i:14025)**
 Todorov, A. N. The period mapping that is surjective for $K3$ -surfaces representable as a double plane. (Russian) **(81d:14022)**
 Uem, Sampel Deformation and local Torelli theorem for certain surfaces of general type. **(81b:32007)**
 Yoshitane, Hisao On deformations of hyperelliptic manifolds. **(81i:32016)**

14J17 Singularities of surfaces

- Bădescu, Lucian Applications of the Grothendieck duality theory to the study of normal isolated singularities. **81a:14012**
 Bruce, James William A stratification of the space of cubic surfaces. **81e:14022**
 González Sprinberg, Gerardo Une formule pour les singularités isolées de surfaces. (English summary) **81f:14020**
 Randell, Richard Some topology of Zariski surfaces. **81k:14028**
 Uri, Luigi The singularities imposed by a projective algebraic variety on the hypersurfaces that pass through it. (Italian. English summary) **81k:14029**

secondary classifications:

- Lanteri, Antonio (with Struppa, Daniele) Degenerations of compact surfaces: the nonorientable case. (Italian. English summary) **(81a:57013)**
 Looijenga, Eduard Homogeneous spaces associated to certain semi-universal deformations. **(81j:14006)**
 Shah, Jayant Insignificant limit singularities of surfaces and their mixed Hodge structure. **(81e:14021)**
 Struppa, Daniele See Lanteri, Antonio. **(81a:57013)**
 Thomas, Emory (with Vasquez, A. T.) On the resolution of cusp singularities and the Shintani decomposition in totally real cubic number fields. **(81h:10037)**
 Vasquez, A. T. See Thomas, Emory. **(81h:10037)**
 Zariski, Oscar A new proof of the total embedded resolution theorem for algebraic surfaces (based on the theory of quasi-ordinary singularities). **(81b:14004)**

14J20 Arithmetic ground fields [See also 10Bxx, 14Gxx.]

secondary classifications:

- Oda, Takayuki A note on the Tate conjecture for $K3$ surfaces. **(81j:14013)**

14J25 Special surfaces

- Bardelli, Fabio Remarks on the moduli of general cubic surfaces. (Italian. English summary) **81j:14020**
 Blass, Piotr Zariski surfaces. **81a:14013**
 Cox, David A. (with Zucker, Steven M.) Intersection numbers of sections of elliptic surfaces. **81i:14023**
 Franke, Hans-Georg ★ Kurven in Hilbertschen Modulflächen und Humbertschen Flächen im Siegel-Raum. (German) [Curves in Hilbert's modular surfaces and Humbert surfaces in the Siegel space] **81e:14023**
 Gizatullin, M. H. G -projectivity of rational G -surface. (Russian) **81g:14016**
 Ignatenko, V. F. The geometry of algebraic surfaces with symmetries. (Russian) **81m:14027**
 Inose, Hiroshi Defining equations of singular $K3$ surfaces and a notion of isogeny. **81h:14021**
 Lang, William E. (with Nygaard, Niels O.) A short proof of the Rudakov-Šafarevič theorem. **81i:14024**
 Lanteri, Antonio (with Palleschi, Marino) Observations in the elliptic scroll in P^4 . (Italian. English summary) **81k:14030**
 Looijenga, Eduard On quartic surfaces in projective 3-space. **81i:14025**
 Mizukami, Masumi Fixed point free involutions on certain nonsingular quartic surfaces. **81m:14028**
 Natanzon, S. M. On the total number of ovals of four complex-isomorphic real algebraic curves. (Russian) **81k:14031**
 Nygaard, Niels O. See Lang, William E. **81i:14024**

- Ogus, Arthur Supersingular $K3$ crystals. **81e:14024**
 Palleschi, Marino See Lanteri, Antonio. **81k:14030**
 Tihomirov, A. S. Geometry of the Fano surface of a double P^3 branched in a quadric. (Russian) **81g:14017**
 Todorov, A. N. The period mapping that is surjective for $K3$ -surfaces representable as a double plane. (Russian) **81d:14022**
 Zucker, Steven M. See Cox, David A. **81i:14023**

secondary classifications:

- Beauville, Arnaud L'application canonique pour les surfaces de type général. **(81m:14025)**
 Bruce, James William A stratification of the space of cubic surfaces. **(81e:14022)**
 Colliot-Thélène, Jean-Louis (with Coray, Daniel) L'équivalence rationnelle sur les points fermés des surfaces rationnelles fibrées en coniques. **(81d:14006)**
 Coray, Daniel See Colliot-Thélène, Jean-Louis. **(81d:14006)**
 Lepowsky, James (with Moody, Robert V.) Hyperbolic Lie algebras and quasiregular cusps on Hilbert modular surfaces. **(81e:10030)**
 Mandelbaum, Richard Four-dimensional topology: an introduction. **(81j:57001)**
 Matsunaga, Hiromichi Automorphisms of some surfaces and equivariant line bundles. **(81i:14005)**
 Moody, Robert V. See Lepowsky, James. **(81e:10030)**
 Nikulin, V. V. Quotient-groups of groups of automorphisms of hyperbolic forms of subgroups generated by 2-reflections. (Russian) **(81d:10011)**
 Finite groups of automorphisms of Kählerian $K3$ surfaces. (Russian) **(81e:32033)**
 Persson, Ulf A family of genus two fibrations. **(81a:14019)**
 Plene, Ragni Some formulas for a surface in P^3 . **(81e:14034)**
 Raynaud, Michel Contre-exemple au "vanishing theorem" en caractéristique $p > 0$. **(81b:14011)**
 Shiga, Hironori One attempt to the $K3$ modular function I . **(81e:32028)**
 Tsuchihashi, Hiroyasu Compactifications of the moduli spaces of hyperelliptic surfaces. **(81f:32039)**
 Uem, Sampel Deformation and local Torelli theorem for certain surfaces of general type. **(81b:32007)**
 Viro, O. Ja. Construction of multicomponent real algebraic surfaces. (Russian) **(81d:14024)**

14J30 Special 3-folds [See also 14E05.]

- Benveniste, Xavier Variétés de dimension 3 de type général, tel que le système linéaire défini par un multiple du diviseur canonique soit sans point-base. (English summary) **81h:14022**
 Iskovskih, V. A. (with Šokurov, V. V.) Biregular theory of Fano 3-folds. **81a:14014**
 Anticanonical models of three-dimensional algebraic varieties. (Russian) **81i:14026**
 Birational automorphisms of three-dimensional algebraic varieties. (Russian) **81i:14026**
 Mabuchi, Toshiaki On the classification of essentially effective $SL(2;C) \times SL(2;C)$ -actions on algebraic threefolds. **81k:14033a**
 Mori, Shigefumi Threefolds whose canonical bundles are not numerically effective. **81e:14023**
 Picco Botta, Luciana (with Verra, Alessandro) An example of unirational nonrational threefold which is a conic bundle over a rational surface. **81j:14021**
 Sarkisov, V. G. Birational automorphisms of three-dimensional algebraic varieties representable as a conic bundle. (Russian) **81d:14023**
 Šokurov, V. V. The existence of a line on Fano varieties. (Russian) **81k:14032**
 See also Iskovskih, V. A. **81a:14014**
 Tjurin, A. N. The intermediate Jacobian of three-dimensional varieties. (Russian) **81i:14026a**
 Verra, Alessandro See Picco Botta, Luciana. **81j:14021**
 Žarov, S. V. A hypercube with a double normal curve in P_4 and its rectilinear generators. (Russian) **81b:14018**

secondary classifications:

- Beltrametti, Mauro (with Francia, Paolo) Some remarks on the cohomology of an invertible sheaf. **(81b:14010)**
 Francia, Paolo See Beltrametti, Mauro. **(81b:14010)**
 Roberts, Joel Some properties of double point schemes. **(81k:14044)**
 Thomas, Emory (with Vasquez, A. T.) On the resolution of cusp singularities and the Shintani decomposition in totally real cubic number fields. **(81h:10037)**
 Tihomirov, A. S. Geometry of the Fano surface of a double P^3 branched in a quadric. (Russian) **(81g:14017)**
 Vasquez, A. T. See Thomas, Emory. **(81h:10037)**
 Viehweg, Eckart Classification theory of algebraic threefolds. **(81a:14011)**

14J35 Special 4-folds [See also 14E05.]

14J40 Special n -folds

- Burau, W. Über eine gewisse Klasse von algebraischen Varietäten der Kodimension 2. **81j:14022**
 Gurjar, R. V. Topology of affine varieties dominated by an affine space. **81m:14029**
 Mabuchi, Toshiaki On the classification of essentially effective $SL(n;C)$ -actions on algebraic n -folds. **81k:14033b**

14J99 None of the above, but in this section

- Edge, W. L. A special polyhedral net of quadrics. **81k:14034**
 Mandelbaum, Richard (with Moishezon, Boris) On the topology of simply connected algebraic surfaces. **81g:14018**

Mohsrezen, Boris Topological questions in the theory of algebraic surfaces. **81h:14023**

See also Mandelbaum, Richard, **81g:14018**

Viro, O. Ja. Construction of multicomponent real algebraic surfaces. (Russian) **81d:14024**

secondary classifications:

Francia, Paolo Some remarks on minimal models. I. (**81h:14013**)

Lamotte, Klaus The topology of complex projective varieties after S. Lefschetz. (**81m:14019**)

Mandelbaum, Richard Special handlebody decompositions of simply connected algebraic surfaces. (**81f:57033**)

14KXX Abelian varieties and schemes

Markušević, A. I. ★Введение в классическую теорию абелевых функций. (Russian) [Introduction to the classical theory of abelian functions] **81c:14024**

14K05 Algebraic theory

Sasaki, Ryuji Some remarks on ordinary abelian varieties. **81f:14021**

Sekiguchi, Tsutomu On the nonzero points of sections of a line bundle on an abelian variety. **81f:14022**

14K07 Elliptic curves, one-dimensional theory

Andrić, V. I. Distinguishing the class of general local fields with residue field of characteristic zero for which the Tate-Safarevič pairing in elliptic curves is nondegenerate from the left. (Russian. English summary) **81a:14020a**

Basarab, Șerban A. The diameter of the conjugates of a point on an elliptic curve. II. (Romanian. English summary) **81a:14015**

Cox, David A. Solutions of Weierstrass equations. **81b:14019**

(with Parry, Walter R.) Torsion in elliptic curves over $k(t)$. **81k:14035**

Hazama, Fumio On the Mordell-Weil group of certain elliptic curve. **81a:14016**

Ishii, Noburo Rational points on canonical models of principal congruence subgroups. **81j:14023**

Parry, Walter R. See Cox, David A., **81k:14035**

Ramos, Zenaida Elliptic curves with split multiplicative reduction over complete rings. **81i:14027**

Vvedens'kii, O. M. The possibility of constructing duality in elliptic curves over global and quasiglobal fields. (Russian) **81b:14020**

The Artin effect in elliptic curves. I. (Russian) **81b:14021**

secondary classifications:

Abramov, S. A. (with Rozenbljum, M. Ju.) Approximate calculation of the first term of the Taylor expansion at 1 of the canonical L -function of Weil curves. (Russian) (**81e:14015**)

Agrawal, M. K. (with Coates, John; Hunt, D. C.; Van der Poorten, Alfred J.) Elliptic curves of conductor 11. (**81e:10022**)

Andrić, V. I. Elliptic curves over pseudolocal fields. (Russian) (**81a:14020b**)

Bedeochi, Edmondo Elliptic cubics over F_p . (Italian. English summary) (**81h:14016**)

Bloch, Spencer Algebraic K -theory and zeta functions of elliptic curves. (**81h:12011**)

Coates, John The arithmetic of elliptic curves with complex multiplication. (**81c:14011**)

See also Agrawal, M. K.; et al., (**81e:10022**)

Cohn, Harvey Diophantine equations over $C(t)$ and complex multiplication. (**81k:10027**)

Coleman, Robert F. Division values in local fields. (**81g:12017**)

Goldfeld, Dorian Conjectures on elliptic curves over quadratic fields. (**81i:12014**)

Ha Zui Hui A p -adic L -function associated with an elliptic curve. (Russian) (**81k:10046**)

Hunt, D. C. See Agrawal, M. K.; et al., (**81e:10022**)

Kenku, M. A. The modular curve $X_0(169)$ and rational isogeny. (**81m:10048**)

Ligozat, Gérard Courbes elliptiques ayant bonne réduction en dehors de 3. (**81a:14017**)

Mestre, Jean-François Points rationnels de la courbe modulaire $X_0(169)$. (**81h:10036**)

Mizukami, Masumi Fixed point free involutions on certain nonsingular quartic surfaces. (**81m:14028**)

Olson, Loren D. The trace of Frobenius for elliptic curves with complex multiplication. (**81b:10018**)

Rohrich, David E. The nonvanishing of certain Hecke L -functions at the center of the critical strip. (**81k:12017**)

Rosenbljum, M. Ju. See Abramov, S. A., (**81e:14015**)

Van der Poorten, Alfred J. The polynomial $x^2 + x^2 + x - 1$ and elliptic curves of conductor 11. (**81c:10021**)

See also Agrawal, M. K.; et al., (**81e:10022**)

14K10 Algebraic moduli, classification

Namikawa, Yukihiko Toroidal degeneration of abelian varieties. II. **81a:14019**

Ode, Tadao (with Oort, Frans) Supersingular abelian varieties. **81f:14023**

Oort, Frans See Ode, Tadao, **81f:14023**

Turner, Stuart Principal polarizations of abelian surfaces over finite fields. **81b:14022**

secondary classifications:

Cox, David A. (with Parry, Walter R.) Torsion in elliptic curves over $k(t)$. (**81k:14035**)

Parry, Walter R. See Cox, David A., (**81k:14035**)

Tankee, S. G. Algebraic cycles on abelian varieties. II. (Russian) (**81b:14023**)

Ueno, Kenji On algebraic fibre spaces of abelian varieties. (**81d:14012**)

14K15 Arithmetic ground fields [See also 10Bxx, 10Dxx, 14Gxx.]

Andrić, V. I. Elliptic curves over pseudolocal fields. (Russian) **81a:14020b**

Bloch, Spencer A note on height pairings, Tamagawa numbers, and the Birch and Swinnerton-Dyer conjecture. **81m:14030**

Bogomolov, F. A. Sur l'algèbre des représentations I -adiques. (English summary) **81c:14025**

Points of finite order on abelian varieties. (Russian) **81m:14031**

Imai, Hideo On the rational points of some Jacobian varieties over large algebraic number fields. **81f:14024**

Ribet, Kenneth A. Kummer theory on extensions of abelian varieties by tori. **81g:14019**

Zarhin, Ju. G. Abelian varieties, I -adic representations and Lie algebras. Rank independence on I . **81j:14024**

secondary classifications:

Basarab, Șerban A. The diameter of the conjugates of a point on an elliptic curve. II. (Romanian. English summary) (**81a:14015**)

Bertrand, Daniel (with Flicker, Yuval Z.) Linear forms on abelian varieties over local fields. (**81k:10056**)

Deligne, Pierre Variétés de Shimura: interprétation modulaire, et techniques de construction de modèles canoniques. (**81i:10032**)

Flicker, Yuval Z. See Bertrand, Daniel, (**81k:10056**)

Vvedens'kii, O. M. The Artin effect in elliptic curves. I. (Russian) (**81b:14021**)

The Artin effect in abelian varieties. (Russian) (**81b:14016**)

14K20 Analytic theory; abelian integrals and differentials

Gherardelli, Francesco Some remarks on algebraic varieties associated with number fields. (Italian. English summary) **81e:14025**

secondary classifications:

Bertrand, Daniel (with Masser, David W.) Formes linéaires d'intégrales abéliennes. (English summary) (**81d:10026**)

Markušević, A. I. ★Введение в классическую теорию абелевых функций. (Russian) [Introduction to the classical theory of abelian functions] (**81c:14024**)

Masser, David W. See Bertrand, Daniel, (**81d:10026**)

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Morita, Yasuo Analytic functions on an open subset of $P^1(k)$. (**81c:30087**)

Oda, Tadao ★Torus embeddings and applications. (**81e:14001**)

Schwartz, Charles F. The group of rational solutions of $y^2 = x(x-1)(x-t^2-c)$. (**81c:14014**)

14K22 Complex multiplication [See also 10D25.]

Dodson, Bruce A new example of quasiabelian varieties, and its characterization. (Italian summary) **81h:14024**

Tankee, S. G. Algebraic cycles on abelian varieties. II. (Russian) **81b:14023**

secondary classifications:

Adler, Allan Antiholomorphic involutions of analytic families of abelian varieties. (**81f:10035**)

Gross, Benedict H. ★Arithmetic on elliptic curves with complex multiplication. (**81f:10041**)

(Mazur, B.) See Gross, Benedict H., (**81f:10041**)

14K25 Theta functions

Fay, John On the Riemann-Jacobi formula. **81g:14020**

secondary classifications:

Čerednik, I. V. Some S -matrices connected with abelian varieties. (Russian) (**81d:14013**)

Čudnovsky, David V. Les fonctions theta du point de vue de la théorie des représentations et les matrices S complètement X -symétriques correspondantes. (English summary) (**81m:22018**)

Erohin, V. A. Theta series of even unimodular 24-dimensional lattices. (Russian) (**81j:10032**)

Fegan, H. D. Theta functions and modular jets. (**81f:10032**)

Frenkel, I. B. Spinor representations of affine Lie algebras. (**81j:17011**)

Glass, J. P. Bitangents of plane quartics. (**81a:14008**)

Křiváček, I. M. Commutative rings of ordinary linear differential operators. (Russian) (**81d:47031**)

Krivoykov, S. G. (with Man'ko, V. I.) Coherent states and Bloch functions. (Russian summary) (**81d:81031**)

Lion, Gérard (with Vergne, Michèle) ★The Weil representation, Maslov index and theta series. (**81j:58075**)

Man'ko, V. I. See Krivoykov, S. G., (**81d:81031**)

Matsumo, Yoshimasa Interaction of the Benjamin-Ono solitons. (**81d:35072**)

Penney, Richard C. Harmonically induced representations on nilpotent Lie groups and automorphic forms on nilmanifolds. (**81h:22008**)

Rallis, Stephen On a relation between SL_2 cusp forms and automorphic forms on orthogonal groups. (**81c:10029**)

Sasaki, Ryuji Some remarks on ordinary abelian varieties. (**81f:14021**)

Sekiguchi, Tsutomu On the nonzero points of sections of a line bundle on an abelian variety. (**81f:14022**)

Tapia-Recillas, Horacio Ultrametric theta functions and abelian varieties. (**81m:10054**)

Tolimieri, R. Heisenberg manifolds and theta functions. (**81d:22012**)

Vergne, Michèle See Lion, Gérard, (**81j:58075**)

Yoshida, Masanaki An example of a family of ordinary Fuchsian differential equations with discrete projective monodromy groups. (81j:34013)

14K30 Picard schemes, higher Jacobians

Altman, Allen B. (with Kleiman, Steven L.) Compactifying the Picard scheme. II. 81f:14025b

(with Kleiman, Steven L.) Compactifying the Picard scheme. 81f:14025a

Collins, Alberto Footnote to a paper of Griffiths: "On the periods of certain rational integrals. I. II" [Ann. of Math. (2) 90 (1969), 460-541; MR 41 #5357]. (Italian summary) 81f:14028

Contou-Carrère, Carlos E. La jacobienne généralisée d'une courbe relative; construction et propriété universelle de factorisation. (English summary) 81g:14021

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Campana, Frédéric Variations de fibrés vectoriels. Applications aux espaces de sections et aux diviseurs. (81f:32040)

D'Souza, Cyril Compactification of generalised Jacobians. (81h:14004)

Herrlich, Frank The automorphisms of p -adic Schottky curves of genus 2. (81h:14017)

Novikov, S. P. New applications of algebraic geometry to nonlinear equations and inverse problems. (81h:35149)

Rego, C. J. The compactified Jacobian. (81k:14006)

Timonov, A. S. Geometry of the Fano surface of a double P^3 branched in a quartic. (Russian) (81g:14017)

14K99 None of the above, but in this section

secondary classifications:

Ihata, Shigeru A numerical criterion of quasi-abelian surfaces. (81c:14019)

14Lxx Group schemes (For linear algebraic groups, see 20Gxx. For Lie algebras, see 17B45.)

14L05 Formal groups, p -divisible groups [See also 17B50.]

Breen, Lawrence Rapport sur la théorie de Dieudonné. 81j:14025

Hazewinkel, Michiel Twisted Lubin-Tate formal group laws, ramified Witt vectors and (ramified) Artin-Hasse exponentials. 81m:14032

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Weisfeller, Boris On Lie algebras of differential formal groups of Ritt. 81f:14027

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Cerwas, V. V. Canonical form in conjugacy classes of a one-dimensional group of formally analytic transformations over a field of characteristic $p > 0$. (Russian) (81a:13016)

Coleman, Robert F. Division values in local fields. (81g:12017)

Gross, Benedict H. Ramification in p -adic Lie extensions. (81e:12018)

Illusie, Luc Complexe de de Rham-Witt. (81j:14012)

Katz, Nicholas M. Slope filtration of F -crystals. (81h:14014)

Kolyagin, V. A. Formal groups and the norm residue symbol. (Russian) (81h:12018)

Raynaud, Michel "p-torsion" du schéma de Picard. (81f:14026)

Vostokov, S. V. Normed pairing in formal modules. (Russian) (81h:12017)

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Bainakov, M. I. (with Čistov, A. L.) Rationality of a class of tori. (Russian) (81c:14009)

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14L15 Group schemes

Badra, Abdallah Déformations des p -groupes finis commutatifs sur un corps parfait et filtration de Hodge. (English summary) 81k:14036

Demazure, M. Sur la structure birationnelle de B^* . 81c:14026

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Schneider, Hans-Jürgen Decomposable extensions of affine groups. 81m:14033

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Waterhouse, William C. Commutative polynomial group laws over valuation rings. 81k:14038

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secondary classifications:

Douai, Jean-Claude Principe de Hasse pour le H^1 . (English summary) (81e:14016)

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14L17 Affine algebraic groups, hyperalgebra constructions [See also 17B45, 18D35.]

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secondary classifications:

Cline, Edward (with Parshall, Brian; Scott, Leonard) Cohomology, hyperalgebras, and representations. (81k:20060)

Donkin, Stephen The blocks of a semisimple algebraic group. (81k:20055)

Parshall, Brian See Cline, Edward; et al., (81k:20060)

Pauer, Franz Invariante Zwischenkörper endlicher Körpererweiterungen. (English summary) (81a:12022)

Radford, David E. On an analog of Lagrange's theorem for commutative Hopf algebras. (81c:16011)

Scott, Leonard See Cline, Edward; et al., (81k:20060)

Skowroński, Andrzej The category of abelian Hopf algebras. (81m:16014)

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14L25 Pro-algebraic group schemes

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14L30 Group actions on varieties or schemes [See also 14D25.]

Almkvist, Gert (with Fossum, Robert) Decomposition of exterior and symmetric power of indecomposable Z/pZ -modules in characteristic p and relations to invariants. 81h:14024

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Richardson, R. W. The conjugating representation of a semisimple group. 81a:14023

Servedio, Frank J. Orbits in higher singular subvarieties of a hypersurface of a form. 81a:14024

Spitz, G. B. Transformation groups with algebraic invariants. (Russian) 81d:14025

Vargas, J. A. Fixed points under the action of unipotent elements of SL_n in the flag variety. 81h:14027

Wright, David Lee Abelian subgroups of $Aut_k(k[X, Y])$ and applications to actions on the affine plane. 81k:14040

secondary classifications:

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Dimca, Alexandru On the algebraic structures and the automorphism groups of the nonsingular projective hypersurfaces. (81h:14008)

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Hinič, V. A. Gorenstein modules for a ring of invariants. (Russian) (81b:13008)

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(with Musili, C.; Seshadri, C. S.) Geometry of G/P . III. Standard monomial theory for a quasi-minuscule P . (81g:14023c)

(with Musili, C.; Seshadri, C. S.) Geometry of G/P . IV. Standard monomial theory for classical types. (81g:14023d)

Levasseur, Thierry Action du groupe additif, d'après M. Miyanishi. (81k:14026)

Mabuchi, Toshiaki On the classification of essentially effective $SL(2; C) \times SL(2; C)$ -actions on algebraic threefolds. (81k:14033a)

On the classification of essentially effective $SL(n; C)$ -actions on algebraic n -folds. (81k:14033b)

Magid, Andy R. Picard groups of rings of invariants. (81g:14004)

(Miyazaki, Masayoshi) See Levasseur, Thierry. (81i:14026)

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Schwarz, Gerald W. Lifting smooth homotopies of orbit spaces. (81h:57024)

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See also Lakshmi, V.; et al. (81g:14023b); Lakshmi, V.; et al. (81g:14023c) and Lakshmi, V.; et al. (81g:14023d)

Springer, T. A. A formula for the characteristic function of the unipotent set of a finite Chevalley group. (81d:20035)

14L35 Classical groups (geometric aspects)

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Dye, Roger H. Maximal subgroups of $GL_{2n}(K)$, $SL_{2n}(K)$, $PGL_{2n}(K)$ and $PSL_{2n}(K)$ associated with symplectic polarities. (81j:20061)

Platonov, V. P. (with Černousov, V. I.) On the rationality of canonical Spin varieties. (Russian) (81k:14019)

Ramanathan, A. Moduli for principal bundles. (81c:14006)

Verma, Daya-Nand On a classical stability result on invariants of isotypical modules. (81j:20060)

14L40 Other algebraic groups (geometric aspects)

14L99 None of the above, but in this section

14Mxx Special varieties

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Aramov, Luchezar L. A class of factorial domains. 81f:14029

Coste, Alberto Cohen-Macaulay varieties. (Italian. English summary) 81h:14028

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Traverso, C. See Greco, Silvio. 81j:14030

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Bacławski, Kenneth Cohen-Macaulay ordered sets. (81m:06002)

Boda, Eduard Einige Eigenschaften der Parameterideale und ihre Anwendungen für Buchsbaum Ringe. (Russian summary) (81f:13010)

Goto, Shiro On the Cohen-Macaulayfication of certain Buchsbaum rings. (81m:13023)

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Niesi, G. See Marinari, M. G. (81i:13007)

Sally, Judith D. Superregular sequences. (81m:13024)

14M07 Low-codimension problems [See also 14Cxx.]

14M10 Complete intersections

Bresinsky, H. Monomial space curves in A^3 as set-theoretic complete intersections. 81g:14022

Chen, Bang-yen Euler characteristics and codimensions of complete intersections. 81h:14028

Ferrand, Daniel Set-theoretical complete intersections in characteristic $p > 0$. 81d:14026

Ligzber, Anatoly S. (with Wood, John W.) Diffeomorphic complete intersections with different multidegrees. 81c:14028

Lütkebohmert, Werner Affine curves in characteristic p . 81h:14029

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Babenko, I. K. Real homotopy properties of complete intersections. (Russian) (81b:55031)

Boratyński, M. On a conjecture of M. P. Murthy. (81a:13008)

Geramita, A. V. (with Weibel, Charles A.) Ideals with trivial conormal bundle. (81a:13009)

Matsuoka, Tadayuki Reflexivity of the canonical modules of almost complete intersections. (Japanese) (81j:13023)

Oishi, Akira Openness of loci, P -excellent rings and modules. (81k:13000)

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Vitulli, Marie A. Complete intersections in C^n and R^{2n} . (81c:14012)

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Kleppe, H. (with Laksov, Dan) The generic perfectness of determinantal schemes. (81d:13010)

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(with Musili, C.; Seshadri, C. S.) Geometry of G/P . III. Standard monomial theory for a quasi-minuscule P . 81g:14023c

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Roloff, Hartmut (with Stückrad, Jürgen) Bemerkungen über Zusammenhangseigenschaften und mengentheoretische Darstellung projektiver algebraischer Mannigfaltigkeiten. 81h:14031

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secondary classifications:

Canuto, Giuseppe Double covers of curves in $G(2, 4)$. (81g:14013)

Dochitov, Constantin p -adic Grassmann varieties. (Romanian. French summary) (81m:32035)

Glover, Henry H. (with Homer, William D.) Equivariant immersion of flag manifolds. (81a:57029)

Griffiths, Phillip A. (with Harris, Joseph) On the variety of special linear systems on a general algebraic curve. (81e:14033)

Haboush, W. J. A short proof of the Kempf vanishing theorem. (81g:14008)

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Lascoux, A. (with Schützenberger, Marcel-Paul) A new statistics on words. (81m:20018)

Morsy, Monir S. The geometrical relationship between the quadruple $(P_{n+1}(C), Q_n(C), P_{n+1}(R), V_{n+2,2}(R))$. (81b:57022)

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14M17 Homogeneous spaces [See also 32M10, 53C30, 57T15.]

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Bernard, Daniel Espaces homogènes et repère mobile. (81f:53040)

- Brylinski, Jean-Luc (with Kashiwara, Masaki) Démonstration de la conjecture de Kazhdan-Lusztig sur les modules de Verma. (English summary) (81k:17004)
- Kashiwara, Masaki See Brylinski, Jean-Luc, (81k:17004)
- Lakshmibai, V. (with Seshadri, C. S.) Geometry of G/P . II. The work of de Concini and Procesi and the basic conjectures. (81g:14023b)
- (with Musili, C.; Seshadri, C. S.) Geometry of G/P . III. Standard monomial theory for a quasi-minuscule P . (81g:14023c)
- (with Musili, C.; Seshadri, C. S.) Geometry of G/P . IV. Standard monomial theory for classical types. (81g:14023d)
- (Miyake, Katsuya) See Oda, Tadahito, (81e:14001)
- Musili, C. See Lakshmibai, V.; et al., (81g:14023c) and Lakshmibai, V.; et al., (81g:14023d)
- Oda, Tadahito ★ Torus embeddings and applications. (81e:14001)
- Seshadri, C. S. Geometry of G/P . I. Theory of standard monomials for minuscule representations. (81g:14023a)
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- Platonov, V. P. On the problem of the rationality of spin varieties. (Russian) 81a:14027

secondary classifications:

- Gizatullin, M. H. Rational G -surfaces. (Russian) (81d:14020)
- Gulef, R. Z. Representation of a four-dimensional projective space on a plane by means of oblique projection in P_3 . (Russian) (81h:51012)
- Kambayashi, T. Automorphism group of a polynomial ring and algebraic group action on an affine space. (81e:14026)
- Knight, A. J. Some loci in S_3 associated with systems of conics in a plane. (81c:51037)
- Conics related by a pentagram: a problem of J. E. Reeve. (81c:51038)
- Lanteri, Antonio (with Pallese, Marino) Observations in the elliptic scroll in P^4 . (Italian. English summary) (81k:14030)
- Levasseur, Thierry Action du groupe additif, d'après M. Miyanishi. (81k:14026)
- Miyanishi, Masayoshi ★ Curves on rational and unirational surfaces. (81f:14001)
- (with Sugie, Tohru) Affine surfaces containing cylinderlike open sets. (81h:14020)
- See also Levasseur, Thierry, (81k:14026)
- Mori, Shigefumi Projective manifolds with ample tangent bundles. (81j:14010)
- Pallese, Marino See Lanteri, Antonio, (81k:14030)
- Sarkisov, V. G. Birational automorphisms of three-dimensional algebraic varieties representable as a conic bundle. (Russian) (81d:14023)
- Šokurov, V. V. The existence of a line on Fano varieties. (Russian) (81k:14032)
- Sugie, Tohru See Miyanishi, Masayoshi, (81h:14020)
- Umemura, Hiroshi Sur les sous-groupes algébriques primitifs du groupe de Cremona à trois variables. (81k:14011)

14M99 None of the above, but in this section

- Hudenko, V. N. Manifolds of multidimensional quadrics. (Russian) 81j:14033
- Renschuch, Bodo Beiträge zur konstruktiven Theorie der Polynomideale. XIII. Veronesische Projektionskurven im S_4 . (Russian and English summaries) 81d:14029

secondary classifications:

- Ehlers, Fritz ★ Newtonpolyeder und die Monodromie von Hyperflächensingularitäten. (German) [Newton polyhedra and the monodromy of hypersurface singularities] (81d:32021)
- Iakovskikh, V. A. (with Šokurov, V. V.) Biregular theory of Fano 3-folds. (81a:14014)
- Shearer, James B. A graded algebra with a nonrational Hilbert series. (81b:16002)
- Šokurov, V. V. See Iakovskikh, V. A., (81a:14014)
- Stanley, Richard P. The number of faces of a simplicial convex polytope. (81f:52014)

14Nxx Classical methods and problems [See also 51-XX.]

14N05 Projective techniques

- Grigorov, H. (with Peklić, V. A.) Stratifiable cubic Cremona transformations, realized by hypercubics with a double line. (Bulgarian. Russian and English summaries) 81k:14043
- Peklić, V. A. See Grigorov, H., 81k:14043
- Rizzitelli, Giuseppe On a particular class of algebraic hypersurfaces. (Italian. English and French summaries) 81i:14036

secondary classifications:

- Bilo, J. A geometrical problem depending on the equation $ax - xa = 2$ in skew fields. (81h:51014)
- Barua, W. Systems of quadrics through a general variety of Segre and their reduction to irreducible parts. (81k:14042)
- Mollov, Stojan On the properties of a three-dimensional surface of second order in the four-dimensional projective space P^4 . (Bulgarian. Russian and English summaries) (81k:14010a)
- Representation of the four-dimensional projective space on a plane with the aid of a three-dimensional surface of second degree. (Bulgarian. Russian and English summaries) (81k:14010b)
- Muran, K. V. Mapping of a three-dimensional projective space on a plane by a second-order line congruence of the second class. (Russian) (81c:51002)
- Palcj, Marian A remark on the analysis of some properties of a pencil of circles. (Polish. Russian and English summaries) (81i:51017)

- Panella Martinelli, Luigia On a notable metrical model of Veronese surfaces. (Italian) (81m:51028)
- Sjarova, A. B. A third degree stratifiable involution, generated by a straight line congruence (2,4), in the space P_3 . (Bulgarian. Russian and English summaries) (81c:51033)

14N10 Enumerative problems

- Griffiths, Phillip A. (with Harris, Joseph) On the variety of special linear systems on a general algebraic curve. 81e:14033
- Harris, Joseph See Griffiths, Phillip A., 81e:14033
- Holme, Audun On the dual of a smooth variety. 81d:14030
- (with Roberts, Joel) Pinch-points and multiple locus of generic projections of singular varieties. 81c:14030
- Le Barz, Patrick Validité de certaines formules de géométrie énumérative. (English summary) 81d:14031
- Piene, Ragni Some formulas for a surface in P^3 . 81e:14034
- Roberts, Joel Some properties of double point schemes. 81k:14044
- See also Holme, Audun, 81c:14030
- Vainsencher, Israel The degrees of certain strata of the dual variety. 81g:14024

secondary classifications:

- Itaka, Shigeru Plücker-type relations. (Japanese) (81m:14023)
- Procesi, Claudio Trace identities and standard diagrams. (81m:15012)
- Quine, J. R. (with Yang, Paul C.) A noncompact version of Plücker's second equation. (81h:14006)
- Yang, Paul C. See Quine, J. R., (81h:14006)

14N99 None of the above, but in this section

- Knopp, Philip Triangles, conics and sets of 9 associated points. 81b:14029

secondary classifications:

- Laudal, O. A. A generalized trisecant lemma. (81f:14019)

15-XX LINEAR AND MULTILINEAR ALGEBRA; MATRIX THEORY (finite and infinite)

15-01 Elementary exposition, textbooks

- Aleksandrov, P. S. ★ Курс аналитической геометрии и линейной алгебры. (Russian) [A course in analytic geometry and linear algebra] 81m:15001
- Bialynicki-Birula, Andrzej ★ Algebra liniowa z geometrią. (Polish) [Linear algebra and geometry] 81f:15001
- Deschamps, C. See Ramis, E.; et al., 81a:15002
- (Fage, D. M.) See Strang, Gilbert, 81k:15001
- Geise, Gerhard ★ Grundkurs lineare Algebra. (German) [A course on linear algebra] 81d:15001
- Golovina, L. I. ★ Линейная алгебра и некоторые ее приложения. (Russian) [Linear algebra and some of its applications] 81j:15001
- Ibraev, H. I. ★ Теория определителей. (Russian) [Theory of determinants] 81c:15001
- Kolman, Bernard ★ Introductory linear algebra with applications. 81a:15001
- (Kuznecov, Ju. A.) See Strang, Gilbert, 81k:15001
- Leon, Steven J. ★ Linear algebra with applications. 81c:15002
- Mitrinović, Dragoslav S. ★ Matrice i determinante. (Serbo-Croatian) [Matrices and determinants] 81f:15002
- Odoux, J. See Ramis, E.; et al., 81a:15002
- Pixley, Alden F. ★ Applied linear algebra. 81m:15002
- Ramis, E. (with Deschamps, C.; Odoux, J.) ★ Cours de mathématiques spéciales. Vol. 2. (French) [Course on special mathematics. Vol. 2] 81a:15002
- Schmidt, Garfield C. ★ Basic linear algebra with applications. 81c:15003
- Stannbach, Urs ★ Lineare Algebra. (German) [Linear algebra] 81c:15004
- Strang, Gilbert ★ Linear algebra and its applications. 81f:15003
- ★ Линейная алгебра и ее применения. (Russian) [Linear algebra and its applications] 81k:15001

secondary classifications:

- Cline, Randall E. ★ Elements of the theory of generalized inverses for matrices. (81c:15006)
- Davis, Harry F. (with Snider, Arthur David) ★ Introduction to vector analysis. (81e:26007)
- Jaglom, I. M. ★ Геометрия линейных многообразий в n -мерном пространстве. (Russian) [Geometry of linear manifolds in n -dimensional space] (81b:51001)
- Męczyński, M. J. (with Muszyński, J.; Traczyk, Tadeusz; Żakowski, Wojciech) ★ Matematyka: podręcznik podstawowy dla WST. Tom I. (Polish) [Mathematics: textbook for students in polytechnics. Vol. I] (81g:00003)
- Muszyński, J. See Męczyński, M. J.; et al., (81g:00003)
- Snider, Arthur David See Davis, Harry F., (81e:26007)
- Traczyk, Tadeusz See Męczyński, M. J.; et al., (81g:00003)
- Żakowski, Wojciech See Męczyński, M. J.; et al., (81g:00003)

15-02 Advanced exposition (research surveys, monographs, etc.)

- Davis, Philip J. ★ Circulant matrices. 81a:15003
- Schrijver, A. Some background information from linear algebra. (See 81b:05001)
- secondary classifications:
- Ben-Israel, Adi Generalized inverses of matrices and their applications. (81f:15000)

- 15-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Fearnley-Sander, Desmond Hermann Grassmann and the creation of linear algebra. (81d:01016)
(Grassmann, Hermann) See Fearnley-Sander, Desmond, (81d:01016)

- 15-04 Explicit machine computation and programs (not the theory of computation or programming)

Bachem, Achim See Kannan, Ravindran, 81k:15002
Caride, A. O. (with Zanette, S. I.) On the calculation of rotation matrices. 81a:15004
Kannan, Ravindran (with Bachem, Achim) Polynomial algorithms for computing the Smith and Hermite normal forms of an integer matrix. 81k:15002
Zanette, S. I. See Caride, A. O., 81a:15004

- 15-06 Proceedings, conferences, etc.

15A03 Vector spaces, linear dependence, rank

Amir-Moéz, Ali R. (with Baransi, Ramzi; Griffin, M. D.) Altitude vectors and matrices. 81k:15003
Baransi, Ramzi See Amir-Moéz, Ali R.; et al., 81k:15003
Griffin, M. D. See Amir-Moéz, Ali R.; et al., 81k:15003
Kashara, Shouro Linear independence of linear space valued mappings and pseudo-inner-products. 81j:15002
Laffey, Thomas J. A basis theorem for matrix algebras. 81a:15005
Mayr, Ulrich Zur Definition der linearen Abbildung. 81b:15001

secondary classifications:

Atkinson, M. D. Spaces of matrices with several zero eigenvalues. (81f:15014)
He, Xu Chu The theory of numerical linear dependence and its applications. (Chinese. English summary) (81h:65041)
Hill, Paul Quotients of valued vector spaces. (81k:18013)
Kublanovskaja, V. N. Construction of a canonical basis for matrices and pencils of matrices. (Russian) (81k:65042)
Rao, C. Radhakrishna (with Yanai, Haruo) General definition and decomposition of projectors and some applications to statistical problems. (81h:62124)
Yanai, Haruo See Rao, C. Radhakrishna, (81h:62124)

15A04 Linear transformations, semilinear transformations

Botta, Peter Linear transformations preserving the unitary group. 81h:15001
Howard, Ralph Linear maps that preserve matrices annihilated by a polynomial. 81h:15002
Kuwano, Koichi A note on positivity in symmetric monoids. 81k:15004
Martins, L. C. (with Podio-Guidugli, P.) An elementary proof of the polar decomposition theorem. 81b:15002
Merris, Russell Derivatives of induced operators on symmetry classes of tensors. 81a:15006
Podio-Guidugli, P. See Martins, L. C., 81b:15002
Rimer, David Sur un opérateur matriciel. (Romanian summary) 81j:15003
Syed, Anasrudin A remark on generalisation of orthogonal transformations. 81f:15004

secondary classifications:

Abdeljaouad, Jounaidi (with Abdeljaouad, Mahdi) Automorphismes de l'anneau des endomorphismes triangulaires d'un espace vectoriel de dimension dénombrable. (81d:16018)
Abdeljaouad, Mahdi See Abdeljaouad, Jounaidi, (81d:16018)
Amir-Moéz, Ali R. Relative singular values of linear transformations. (81g:15009)
(with Baransi, Ramzi; Griffin, M. D.) Altitude vectors and matrices. (81k:15003)
Baransi, Ramzi See Amir-Moéz, Ali R.; et al., (81k:15003)
de Bruijn, N. G. Remarks on Hermitian matrices. (81g:15026)
Conway, J. B. (with Halmos, P. R.) Finite-dimensional points of continuity of Lat . (81e:47008)
Griffin, M. D. See Amir-Moéz, Ali R.; et al., (81k:15003)
Halmos, P. R. See Conway, J. B., (81e:47008)
Ljubić, Ju. I. A general form of nonnegative projectors in \mathbb{R}^n . (Russian) (81g:15022)
Müller, Bernd Convergence tensor products and a strict topology. (81j:46014)
Shimomura, Naohisa A theorem on the fixed point set of a unipotent transformation on the flag manifold. (81d:14028)

15A06 Linear equations

Dugiri, O. C. Note on the solvability of the linear algebraic systems. 81f:15005
Faddeev, D. K. Estimation of the domain containing the solution of a system of linear algebraic equations. (Russian) 81j:15004
Mulholland, Robert J. See Weidner, Richard J., 81h:15003
Okeke, C. C. Exact solutions for linear matrix equations. 81b:15003
Weidner, Richard J. (with Mulholland, Robert J.) Kronecker product representation for the solution of the general linear matrix equation. 81h:15003
Yao, Jing Zhi A direct method for solving large systems of linear equations with unrestricted band width. (Chinese. English summary) 81h:15004
Ziehe, Gerhard Die Auflösung beliebiger linearer algebraischer Gleichungssysteme durch Blockzerlegung. 81e:15001
Die Auflösung linearer Gleichungssysteme mittels verallgemeinerter inverser Matrizen. 81i:15002

secondary classifications:

Anderson, Brian D. O. See Bitmead, Robert R., (81m:65044)
Antipka, Adel F. (with Nguyen Ky Toan) Topological solution of ordinary and partial finite difference equations. (81g:39002)
Asprall, Bengt (with Shiloach, Yossi) A fast algorithm for solving systems of linear equations with two variables per equation. (81m:65043)
Bitmead, Robert R. (with Anderson, Brian D. O.) Asymptotically fast solution of Toeplitz and related systems of linear equations. (81m:65044)
Danilov, V. A. The possibility of solving a system of linear algebraic equations with a reduction of order. (Russian) (81i:65024)
Evans, David J. (with Missirlis, N. M.) The preconditioned simultaneous displacement method (PSD method) for elliptic difference equations. (81k:65035)
Malina, Labor Transfer methods and conditions for well-conditioning. (Russian) (81f:65031)
Missirlis, N. M. See Evans, David J., (81k:65035)
Motkanov, I. M. Some requirements of numerical programs for linear algebra. (Russian) (81j:65065)
Nguyen Ky Toan See Antipka, Adel F., (81g:39002)
Peters, F. J. ★Sparse matrices and substructures. (81h:65026)
Prokopović, G. S. (with Prokopović, R. N.) On the stability and accuracy of the solutions of systems of linear equations. (Russian) (81k:65028)
Prokopović, R. N. See Prokopović, G. S., (81k:65028)
Sasay, Thomas L. Interaction and impacts in hierarchical systems. (81g:92029)
Shiloach, Yossi See Asprall, Bengt, (81m:65043)
Šik, František A linear problem of the interval calculus. (Czech summary) (81h:65045)

15A09 Matrix inversion, generalized inverses

Ben-Israel, Adi (with Greville, Thomas N. E.) ★Generalized inverses: theory and applications. 81h:15005
Generalized inverses of matrices and their applications. 81f:15006
Bézi, Magdolna Invertibility of a matrix of binomials. (Hungarian. Russian, German and English summaries) 81m:15003
Campbell, Stephen L. Continuity of the Drazin inverse. 81c:15005
Cline, Randall E. ★Elements of the theory of generalized inverses for matrices. 81c:15006
(with Greville, Thomas N. E.) A Drazin inverse for rectangular matrices. 81a:15007
van Daele, J. See Vandewalle, Joos, 81d:15002
Džumarev, S. (with Hodžiev, Š.) A method of calculating a pseudoinverse matrix and orthogonal projectors. (Russian) 81f:15007
Greville, Thomas N. E. (with Trench, William F.) Band matrices with Toeplitz inverses. 81e:15002
See also Cline, Randall E., 81a:15007 and Ben-Israel, Adi, 81h:15005
Haley, Stephen B. Solution of band matrix equations by projection-recurrence. 81i:15003
Hall, Frank J. On general bordered matrices. 81m:15004
Hartwig, Robert E. Generalized inverses of special block matrices. 81a:15008
Theory and applications of matrix perturbations, with respect to Hankel matrices and power formulae. 81b:15004
He, Xu Chu Continuity of generalized inverses—an application of the theory of numerical dependence. (Chinese. English summary) 81f:15008
Hodžiev, Š. See Džumarev, S., 81f:15007
Kim, Jin Bai The number of generalized inverses of a matrix. 81e:15003
Laviole, J.-L. A determinantal inequality involving the Moore-Penrose inverse. 81g:15001
Lewin, Mordechai (with Neumann, Michael) On the inverse M -matrix problem for $(0, 1)$ -matrices. 81i:15004
Li-Gjun-Y Inversion and reconstruction of Toeplitz matrices. (Russian) 81j:15005
Marrazzini, C. Characterization of the inverse of a particular circulant matrix by means of a continued fraction. 81f:15009
Neumann, Michael See Lewin, Mordechai, 81i:15004
Nomakuchi, Kentaro On the characterization of generalized inverses by bordered matrices. 81f:15006
Oohashi, Tsunemichi Some representation for inverses of band matrices. 81i:15005
Puytjens, R. (with de Smet, H.) The Moore-Penrose inverse for matrices over skew polynomial rings. 81m:15005
Pye, Wallace C. Nonnegative Drazin inverses. 81g:15002
Russakovsky, E. M. Hankel and Toeplitz matrices and the Bezoutiant. I. (Russian) 81g:15003a
Hankel and Toeplitz matrices and the Bezoutiant. II. (Russian) 81g:15003b
Singh, Vishwa Nath The inverse of a certain block matrix. 81c:15007
van der Sluis, A. (with Velkamp, G. W.) Restoring rank and consistency by orthogonal projection. 81c:15008
de Smet, H. See Puytjens, R., 81m:15005
Sontag, Eduardo D. On generalized inverses of polynomial and other matrices. 81j:15007
Trench, William F. See Greville, Thomas N. E., 81e:15002
Vandewalle, Joos (with van Daele, J.) On the computation of the inverse of a rational matrix expansion. 81d:15002
Velkamp, G. W. See van der Sluis, A., 81c:15008
Wu, Chien Fu On some ordering properties of the generalized inverses of nonnegative definite matrices. 81g:15004
secondary classifications:

Caradus, S. R. ★Generalized inverses and operator theory. (81m:47003)
Deufhard, P. (with Sautter, W.) On rank-deficient pseudoinverses. (81g:65049)
Elden, Lars Perturbation theory for the least squares problem with linear equality constraints. (81i:65030)

- Erickson, W. S. Inverse pairs of matrices with integer elements. (81i:65032)
- Goel, V. K. See Jala, S. K., (81i:15020)
- Gower, J. C. A modified Leverrier-Faddeev algorithm for matrices with multiple eigenvalues. (81i:65018)
- Jala, S. K. (with Goel, V. K.) Nonnegative matrices having nonnegative Drazin pseudoinverses. (81i:15020)
- Joshi, V. N. A determinant for rectangular matrices. (81i:15005)
- Kabe, D. G. See Scobery, P., (81i:15014)
- Lovass-Nagy, Victor (with Miller, Richard J.; Mukundan, Rangaswamy) On the application of matrix generalized inverses to the design of observers for time-varying and time-invariant linear systems. (81m:93017)
- Martinez, José María A bound for the Moore-Penrose pseudoinverse of a matrix. (81j:15028)
- Meenakshi, Ar. On EP, matrices with entries from an arbitrary field. (81i:15024)
- Miller, Richard J. See Lovass-Nagy, Victor; et al., (81m:93017)
- Mukundan, Rangaswamy See Lovass-Nagy, Victor; et al., (81m:93017)
- Neumann, Michael (with Plemmons, Robert J.) Generalized inverse-positivity and splittings of M -matrices. (81j:15021)
- Okeke, C. C. Exact solutions for linear matrix equations. (81b:15003)
- Plemmons, Robert J. See Neumann, Michael, (81j:15021)
- Rao, C. Radhakrishna (with Yanai, Haruo) General definition and decomposition of projectors and some applications to statistical problems. (81b:62124)
- Sautter, W. See Deuffhard, P., (81g:65049)
- Scobery, P. (with Kabe, D. G.) On linear matrix equations. (81i:15014)
- Stone, Mervyn A pictorial treatment of generalized inverses for statistics based on dual vector spaces. (German and Russian summaries) (81d:62064)
- Wang, Kai On the generalizations of circulants. (81i:15022)
- Yanai, Haruo See Rao, C. Radhakrishna, (81b:62124)
- Zielke, Gerhard Die Auflösung beliebiger linearer algebraischer Gleichungssysteme durch Blockzerlegung. (81i:15001)
- Die Auflösung linearer Gleichungssysteme mittels verallgemeinerter inverser Matrizen. (81i:15002)

15A12 Conditioning of matrices [See also 65F35.]

- Kuang, Jiao Xun See Wang, Guo Rong, 81b:15006
- Wang, Guo Rong (with Kuang, Jiao Xun) A new measure of the degree of ill-conditioning of a matrix. (Chinese. English summary) 81b:15006

secondary classifications:

- Erickson, W. S. Inverse pairs of matrices with integer elements. (81i:65032)
- Rothblum, Uriel G. (with Schneider, Hans) Characterizations of optimal scalings of matrices. (81j:65064)
- Schneider, Hans See Rothblum, Uriel G., (81j:65064)
- Thonon, A. N. Die Automatisierung der Verarbeitung von Beobachtungen. (81g:65053)
- Zahar, R. V. M. Conditioning of asymptotic band matrix systems. (81m:65059)

15A15 Determinants, permanents, other special matrix functions

- Balasubramanian, K. Maximal diagonal sums. 81f:15010
- Barnett, Stephen (with Jury, E. I.) Inners and Schur complement. 81a:15009
- Brown, Jerzy An introduction to the concept of a determinant in a course in linear algebra. (Polish) 81f:15011
- Carlson, David H. (with Markham, Thomas L.) Schur complements of diagonally dominant matrices. 81b:15005
- Chollet, John See Marcus, Marvin, 81j:15007
- Cortés Gallego, José Principal numbers of square matrices. (Spanish) 81m:15006
- Dale, P. See Vein, P. R., 81f:15013
- Dias da Silva, J. A. On the Schur inequality. 81c:15009
- Dowdy, James E. See Kim, Jin Bai, 81k:15006
- Efimov, N. V. Symmetrization of a determinant. (Russian. English summary) 81f:15012
- Egoryev, G. P. Family of identities for the permanent function. (Russian. Armenian summary) 81d:15003
- A polynomial identity for the permanent function. (Russian) 81c:15010
- Fiedler, Miroslav Irreducibility of compound matrices. 81b:15006
- Foregger, Thomas H. On the minimum value of the permanent of a nearly decomposable doubly stochastic matrix. 81g:15005
- Friedland, Shmuel A lower bound for the permanent of a doubly stochastic matrix. 81i:15006
- Gilson, Peter M. Permanental polytopes of doubly stochastic matrices. 81j:15008
- de Gooijer, J. G. On a recurrence relation for a special type of determinant. 81j:15006a
- On a recurrence relation for a special type of determinant. II. 81j:15006b
- Joshi, V. N. A determinant for rectangular matrices. 81k:15005
- Jury, E. I. See Barnett, Stephen, 81a:15009
- Kim, Jin Bai (with Dowdy, James E.) Determinants of n -dimensional matrices. 81k:15006
- Kress, Moshe (with Tamir, Arie) The use of Jacobi's lemma in unimodularity theory. 81k:15007
- Malek-Shahmirzadi, Massoud On a conjecture by D. Ž. Djoković. 81h:15007
- Marcus, Marvin (with Chollet, John) Linear groups defined by decomposable tensor equalities. 81g:15007
- (with Moore, Kenneth) A subdeterminant inequality for normal matrices. 81g:15008
- Markham, Thomas L. See Carlson, David H., 81b:15005
- Merriell, David The maximum permanent in A_n^+ . 81j:15009
- Minc, Henryk Bounds for permanents and determinants. 81k:15008
- Moore, Kenneth See Marcus, Marvin, 81g:15008
- Schutte, H. J. Circulant matrices and integer determinants. (Afrikaans. English summary) 81i:15007

- Sinkhorn, Richard Concerning the question of monotonicity of the permanent on the doubly stochastic matrices. 81i:15004
- Stojaković, Mirko Elementary transformations and determinants. (Serbo-Croatian. English summary) 81k:15009
- Tamir, Arie See Kress, Moshe, 81k:15007
- Thomas, John D. (with Zund, Joseph D.) A note on the theory of immanants. 81i:15008
- Vein, P. R. (with Dale, P.) Determinants, their derivatives and nonlinear differential equations. 81f:15013
- Zhao, Yong Chang Studies on the flowgraph expansion of determinants. (Chinese. English summary) 81c:15011
- Zund, Joseph D. See Thomas, John D., 81i:15008

secondary classifications:

- Balzer, L. A. Accelerated convergence of the matrix sign function method of solving Lyapunov, Riccati and other matrix equations. (81m:65141)
- Bogart, Kenneth P. (with Gordon, Jean) Hypergraphs, characteristic polynomials and permutation characters. (81d:05037a)
- Bobte, Zvonimir On calculation of the determinant. (Slovenian. English summary) (81a:65047)
- Brucki, Richard A. On 1-factors of cubic bipartite graphs. (81h:05098)
- Dal, Zong Duo The period of a circulant over a finite field. (Chinese) (81j:15016)
- Frame, J. Sutherland Factors of the binomial circulant determinant. (81j:10007)
- Gordon, Jean See Bogart, Kenneth P., (81d:05037a)
- Morris, Russell Applications of spherical functions in multilinear algebra. (81f:20010)
- On the pseudocharacteristic polynomial of K. Bogart and J. Gordon. (81d:05037b)
- Minc, Henryk An asymptotic solution of the multidimensional dimer problem. (81c:82063)
- Newman, Morris On a problem suggested by Olga Taussky-Todd. (81b:15016)
- Taussky, Olga From cyclic algebras of quadratic fields to central polynomials. (81b:15017)

15A18 Eigenvalues, singular values, and eigenvectors

- Amir-Moéz, Ali R. Relative singular values of linear transformations. 81g:15009
- Atkinson, M. D. Spaces of matrices with several zero eigenvalues. 81f:15014
- Balinskii, A. I. (with Zajačkovskii, V. S.) The property of generalized biorthogonality of eigenvectors of mutually adjoint polynomial operator pencils. (Russian) 81d:15004
- Calogero, F. Finite transformations of certain isospectral matrices. 81k:15010
- Cullum, Jane (with Willoughby, Ralph A.) Lanczos and the computation in specified intervals of the spectrum of large, sparse real symmetric matrices. 81m:15007
- Fletcher, R. (with Griffiths, D. F.) The generalized eigenvalue problem for certain unsymmetric band matrices. 81i:15007
- Friedland, Shmuel On an inverse eigenvalue problem arising in circuit theory. 81m:15008
- Gondran, Michel (with Minoux, Michel) Eigenvalues and eigenvectors in semimodules and their interpretation in graph theory. 81k:15011
- Gower, J. C. An application of the Leverrier-Faddeev algorithm to skew-symmetric matrix decompositions. 81m:15009
- Griffiths, D. F. See Fletcher, R., 81i:15007
- Gutman, Shaul Root clustering of a real matrix in an algebraic region. 81k:15012
- Hartfield, D. J. Concerning the interior of the D -stable matrices. 81f:15015
- Kublanovskaja, V. N. On the solution of a spectral problem for matrix pencils. (Russian) 81c:15012
- On the spectral problem for polynomial pencils of matrices. (Russian) 81a:15010
- The connection between a spectral problem for linear pencils of matrices and some problems of algebra. (Russian) 81a:15011
- Malek-Shahmirzadi, Massoud Application of Neumann's lemma to the minimum and characteristic polynomials. 81a:15012
- Minoux, Michel See Gondran, Michel, 81k:15011
- Morel, Paul Algorithmes pour un problème inverse discret de Sturm-Liouville. 81c:15013
- Murdock, James (with Robinson, R. Clark) A note on the asymptotic expansion of eigenvalues. 81k:15013
- Nicholson, D. W. On the spectrum of a nonsingular matrix. (German summary) 81k:15014
- Robinson, R. Clark See Murdock, James, 81k:15013
- Stokes, Vijay K. On the proper vectors of real third order matrices. 81m:15010
- Styan, George P. H. See Wolkowicz, Henry, 81k:15015 and Wolkowicz, Henry, 81k:15016
- Sun, Ji Guang Invariant subspaces and generalized invariant subspaces. I. Existence and uniqueness theorems. (Chinese. English summary) 81j:15010
- Tong, Wen Ting The spectrum of the tensor product of matrices. (Chinese) 81f:15016
- Wasow, Wolfgang On the spectrum of Hermitian matrix-valued functions. 81g:15010
- Willoughby, Ralph A. See Cullum, Jane, 81m:15007
- Wolkowicz, Henry (with Styan, George P. H.) Bounds for eigenvalues using traces. 81k:15015
- (with Styan, George P. H.) More bounds for eigenvalues using traces. 81k:15016
- You, Zhao Yong Block estimation of the spectral radius of a matrix. (Chinese) 81g:15011
- Zajačkovskii, V. S. See Balinskii, A. I., 81d:15004

secondary classifications:

- Aprile, Giuseppe (with Raimondi, T.) Search for intermediate eigenvalues, and applications. (Italian) (81b:65031)
- Caballero, Carlos See Valdés, Pedro; et al., (81m:65056)
- Cho, Munso (with Takaguchi, Makoto) Joint spectra of matrices. (81d:15006)
- Dung Van Uyen Errata to papers by V. N. Kublanovskaja, L. T. Savinova and T. J. Kon'kova. (Russian) (81k:65040)

- Datta, B. N. On the computation of the characteristic polynomial of a Hessenberg matrix. (81g:65047)
- Ferguson, Warren E., Jr. The construction of Jacobi and periodic Jacobi matrices with prescribed spectra. (81a:15023)
- Ferrer, Cristina See Valdés, Pedro; et al. (81m:65056)
- Fiedler, Miroslav A deflation formula for tridiagonal matrices. (Czech summary) (81m:65051)
- Gohberg, Israel (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. I. The finite-dimensional case. (81i:47027a)
- (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. II. The infinite-dimensional case. (81i:47027b)
- Gower, J. C. A modified Leverrier-Faddeev algorithm for matrices with multiple eigenvalues. (81c:65018)
- Haugazeau, Yves Application du théorème de Sylvester à la localisation des valeurs propres de $AX = \lambda BX$ dans le cas symétrique. (English summary) (81m:65052)
- Hochstadt, Harry On the construction of a Jacobi matrix from mixed given data. (81a:15024)
- Hoffman, Alan J. (with Joffe, Peter) Nearest S -matrices of given rank and the Ramsey problem for eigenvalues of bipartite S -graphs. (French summary) (81b:05080)
- Joffe, Peter See Hoffman, Alan J. (81b:05080)
- Juhász, Ferenc On the spectrum of a symmetric random $(0, 1)$ matrix. (Hungarian. English summary) (81m:15016)
- Kaashoek, Marinus A. See Gohberg, Israel; et al. (81i:47027a) and Gohberg, Israel; et al. (81i:47027b)
- Klein, Peter P. Einschließung von Matrixeigenwerten und Polynomnullstellen durch kleinste isolierte Gerschgorinkreise. (English summary) (81k:65041)
- (Kon'kova, T. Ja.) See Dang Van Uyen. (81k:65040)
- Kublanovskaja, V. N. The eigenvalue problem for a regular linear pencil of nearly degenerate matrices. (Russian) (81k:65043)
- See also Dang Van Uyen. (81k:65040)
- Kuhnert, Frieder Über numerische Verfahren für inverse Matrizeigenwertprobleme. (81k:65036)
- Parlett, Beresford N. ★The symmetric eigenvalue problem. (81j:65063)
- Petríková, V. M. Absolute decomposability of matrix polynomials. (Russian) (81b:15011)
- Raimondi, T. See Aprile, Giuseppe. (81b:65031)
- Rodman, Leiba See Gohberg, Israel; et al. (81i:47027a) and Gohberg, Israel; et al. (81i:47027b)
- Rothblum, Uriel G. Bounds on the indices of the spectral-circle eigenvalues of a nonnegative matrix. (81b:15022)
- Ryavec, C. Inequalities for the zeros of Dirichlet L -functions. (81h:10063)
- Savinova, L. T. See Dang Van Uyen. (81k:65040)
- Schmidt, Garfield C. An "almost algebraic" proof of the spectral theorem for R . (81b:15025)
- Serebrjakov, V. P. An inverse problem of the scattering theory for difference equations with matrix coefficients. (Russian) (81j:39003)
- Takaguchi, Makoto See Chō, Muneo. (81d:15006)
- Thompson, Robert C. Invariant factors under rank one perturbations. (81f:15028)
- Valdés, Pedro (with Caballero, Carlos; Ferrer, Cristina) A procedure for the calculation of the eigenvalues and eigenvectors of a Hermitian matrix. (Spanish) (81m:65056)
- Wu, Min Yen A new concept of eigenvalues and eigenvectors and its applications. (81g:93038)

15A21 Canonical forms, reductions, classification

- Ballantine, C. S. (with Yip, E. L.) Congruence and conjunctivity of matrices. 81f:15017
- Bhandari, S. K. Ideal matrices for Dedekind domains. 81f:15018
- Boley, Daniel L. (with Golub, Gene H.) The matrix inverse eigenvalue problem for periodic Jacobi matrices. 81e:15005
- Cooke, Roger L. An uncharacteristic proof of the spectral theorem. 81g:15012
- Engel, Gernot M. (with Schneider, Hans) Matrices diagonally similar to a symmetric matrix. 81k:15017
- Eremenko, V. A. Some properties of periodic matrices. (Russian) 81a:15013
- Gohberg, Israel (with Kaashoek, Marinus A.; van Schagen, F.) Similarity of operator blocks and canonical forms. I. General results, feedback equivalence and Kronecker indices. 81m:15011
- Golub, Gene H. See Boley, Daniel L. 81e:15005
- Jiang, Er Xiong An algorithm for computing a transformation matrix of the Jordan canonical form of any matrix. (Chinese. English summary) 81h:15008
- Kaashoek, Marinus A. See Gohberg, Israel; et al. 81m:15011
- Kazimirs'kii, P. S. (with Šavarovskii, B. Z.) Semiscalar equivalence of certain polynomial matrices. (Russian) 81b:15008
- Koel, P. T. Normal form of an isometry matrix of symplectic space over a finite field. (Russian) 81f:15019
- Melnik, O. M. Semiscalar equivalence of polynomial matrices. (Russian) 81k:15018
- Nanda, V. C. See Narang, Asha. 81e:15014
- Narang, Asha (with Nanda, V. C.) Smith normal form for matrices over Dedekind domains. 81c:15014
- Neumann, Michael Weak stability for matrices. 81b:15009
- Ritter, A. V. Matrix problems. 81f:15020
- Šavarovskii, B. Z. See Kazimirs'kii, P. S. 81b:15008
- van Schagen, F. See Gohberg, Israel; et al. 81m:15011
- Schneider, Hans See Engel, Gernot M. 81k:15017
- Thompson, Robert C. Invariant factors of complementary minors of integral matrices. 81e:15015
- Urhovik, M. M. Reduction of a pair of square matrices to triangular form. (Russian) 81i:15009
- Wang, Yu Feng (with Wu, Le Guang) Enumeration of equivalence classes of matrices

- having the same characteristic polynomial. (Chinese. English summary) 81j:15011
- Watkins, William Similarity of matrices. 81a:15014
- Wilkinson, J. H. Kronecker's canonical form and the QZ algorithm. 81a:15015
- Wu, Le Guang See Wang, Yu Feng. 81j:15011
- Yip, E. L. See Ballantine, C. S. 81f:15017
- Young, N. J. Functions of canonical matrices. 81j:15012
- Zellini, Paolo On some properties of circulant matrices. 81b:15010

secondary classifications:

- Bachem, Achim See Kannan, Ravindran. (81k:15002)
- Brualdi, Richard A. (with Hedrick, Mark B.) A unified treatment of nearly reducible and nearly decomposable matrices. (81g:15016)
- Matrices permutation equivalent to irreducible matrices and applications. (81g:15017)
- (with Harary, Frank; Miller, Zevi) Bigraphs versus digraphs via matrices. (81b:05077)
- Dupont, Jean-Pierre (with Dussaud, René; Idée, Edwige) Réduction des matrices inversibles d'un anneau euclidien. (81c:20057)
- Dussaud, René See Dupont, Jean-Pierre; et al. (81c:20057)
- Friedland, Shmuel On pointwise and analytic similarity of matrices. (81g:15025)
- Harary, Frank See Brualdi, Richard A.; et al. (81b:05077)
- Hedrick, Mark B. See Brualdi, Richard A. (81g:15016)
- van Hemmen, J. Leo A note on the diagonalization of quadratic boson and fermion Hamiltonians. (81j:22010)
- Idée, Edwige See Dupont, Jean-Pierre; et al. (81c:20057)
- Kågström, Bo (with Ruhe, Axel) An algorithm for numerical computation of the Jordan normal form of a complex matrix. (81m:65054)
- Kannan, Ravindran (with Bachem, Achim) Polynomial algorithms for computing the Smith and Hermite normal forms of an integer matrix. (81k:15002)
- Kazimirs'kii, P. S. (with Zelisko, V. R.) On isolation with a polynomial matrix of a regular multiplier with a given Smith form. (Russian) (81c:15016)
- Kevorkian, Aram K. Graph-theoretic characterization of the matrix property of full irreducibility without using a transversal. (81c:05090a)
- Erratum: "Graph-theoretic characterization of the matrix property of full irreducibility without using a transversal". (81c:05090b)
- Markus, A. S. (with Parilis, E. E.) Change of the Jordan structure of a matrix under small perturbations. (Russian) (81j:47013)
- Miller, Zevi See Brualdi, Richard A.; et al. (81b:05077)
- Okoh, Frank No system of uncountable rank is purely simple. (81c:15028)
- Parilis, E. E. See Markus, A. S. (81j:47013)
- Ringel, Claus Michael Reflection functors for hereditary algebras. (81j:16035)
- Ruhe, Axel See Kågström, Bo. (81m:65054)
- Spircu, Tiberiu See Törissi, L.; et al. (81c:90030)
- Taşnadi, Al. See Törissi, L.; et al. (81c:90030)
- Törissi, L. (with Spircu, Tiberiu; Taşnadi, Al.) Economic system structure hierarchization. (French and Russian summaries) (81c:90030)
- Vardulakis, Antonis I. G. Zero placement and the "squaring down" problem: a polynomial matrix approach. (81f:93015)
- Verbitskii, B. V. A global property of matrix-valued functions that depend on several variables. (Russian) (81a:15022)
- Watters, J. F. Block triangularization of algebras of matrices. (81g:15015)
- Zelisko, V. R. See Kazimirs'kii, P. S. (81c:15016)

15A23 Factorization of matrices

- Kazimirs'kii, P. S. (with Zelisko, V. R.) On isolation with a polynomial matrix of a regular multiplier with a given Smith form. (Russian) 81c:15016
- A solution to the problem of separating a regular factor from a matrix polynomial. (Russian) 81j:15013
- Lempel, Abraham See Seroussi, Gadliel. 81k:15019
- Petríková, V. M. Absolute decomposability of matrix polynomials. (Russian) 81b:15011
- Rodman, Leiba On connected components in the set of divisors of a monic matrix polynomial. 81h:15009
- Seroussi, Gadliel (with Lempel, Abraham) Factorization of symmetric matrices and trace-orthogonal bases in finite fields. 81k:15019
- Zelisko, V. R. Construction of a class of invertible matrices. (Russian) 81i:15010
- See also Kazimirs'kii, P. S. 81c:15016

secondary classifications:

- Bézi, Magdolna Invertibility of a matrix of binomials. (Hungarian. Russian, German and English summaries) (81m:15003)
- Dantzig, George B. See Perold, André F. (81h:90091)
- Dogaru, O. C. Note on the solvability of the linear algebraic systems. (81f:15005)
- Estes, Dennis R. (with Matijević, Jacob R.) Matrix factorizations, exterior powers, and complete intersections. (81d:13012)
- Gohberg, Israel (with Lerer, L.) Factorization indices and Kronecker indices of matrix polynomials. (81d:47014a)
- (with Kaashoek, Marinus A.; van Schagen, F.) Similarity of operator blocks and canonical forms. I. General results, feedback equivalence and Kronecker indices. (81m:15011)
- Golub, Gene H. (with Plemmons, Robert J.) Large-scale geodesic least-squares adjustment by dissection and orthogonal decomposition. (81k:65010)
- Kaashoek, Marinus A. See Gohberg, Israel; et al. (81m:15011)
- Lerer, L. See Gohberg, Israel. (81d:47014a)
- Manteuffel, Thomas A. Shifted incomplete Cholesky factorization. (81g:65052)
- Matijević, Jacob R. See Estes, Dennis R. (81d:13012)
- Perold, André F. (with Dantzig, George B.) A basis factorization method for block triangular linear programs. (81h:90091)

- Plemmons, Robert J. See Golub, Gene H., (81h:66010)
 Pollicastro, Mario The bidagonal realization: a tool for solving zero and pole assignment problems. (81m:93036)
 van Schagen, F. See Golberg, Israel; et al., (81m:15011)

15A24 Matrix equations and identities

- Adem, José On maximal sets of anticommuting matrices. 81h:15020
 Ando, Kazuaki (with Kondo, Bunji) Matrix polynomial expansion of a power of a matrix. 81h:15012
 Bachem, Achim (with Korte, Bernhard) Minimum norm problems over transportation polytopes. 81f:15021
 Barraud, A. Y. Produit étoile et fonction signe de matrice. Application à l'équation de Riccati dans le cas discret. (English summary) 81h:15011
 (Bernhard, P.) See Barraud, A. Y., 81h:15011
 Brusch, Massimo (with Ricci, Paolo Emilio) Powers of a quadratic matrix whose minimal polynomial is known. (Italian. English summary) 81h:15012
 Chidambaram, M. R. See Sen, Prodip, 81h:15011
 Dogiara, O. C. Note on the matrix equation $A'AX = A'$. 81h:15013
 Eates, Dennis R. Scalar matrices as multiplicative commutators having prescribed determinants for the variables. 81a:15016
 Griniv, L. M. A theorem on specialization of a matrix polynomial. (Russian) 81j:15014
 Gontsoul, William H. Roth's theorems over commutative rings. 81h:15014
 Kabe, D. G. See Scooby, P., 81h:15014
 Kim, Shoon K. A new method of matrix transformation. I. Matrix diagonalizations via involutorial transformations. 81j:15015a
 A new method of matrix transformations. II. General theory of matrix diagonalizations via reduced characteristic equations and its application to angular momentum coupling. 81j:15015b
 Kondo, Bunji See Ando, Kazuaki, 81h:15012
 Korte, Bernhard See Bachem, Achim, 81f:15021
 Mousouris, Nick See Porter, A. Duane, 81h:15022
 Newman, Morris Matrices of finite period and some special linear equations. 81a:15017
 Petriković, V. M. The number of solutions of a matrix equation. (Russian) 81h:15010
 Porter, A. Duane (with Mousouris, Nick) Ranked solutions of the matrix equation $A_1X_1 = A_2X_2$. 81f:15022
 Potapov, V. P. Linear-fractional transformations of matrices. (Russian) 81f:15023
 Procesi, Claudio Trace identities and standard diagrams. 81m:15012
 Ricci, Paolo Emilio See Brusch, Massimo, 81h:15012
 Rodman, Leiba (with Schaps, M.) On the partial multiplicities of a product of two matrix polynomials. 81h:15021
 Róna, Pál Linear matrix equations and Kronecker products. 81d:15005
 Ryser, H. J. A theorem in combinatorial matrix theory. 81h:15013
 Schaps, M. See Rodman, Leiba, 81h:15021
 Scooby, P. (with Kabe, D. G.) On linear matrix equations. 81h:15014
 Sen, Prodip (with Chidambaram, M. R.) Dolezal's theorem revisited. 81h:15011
 Veidkamp, G. R. The matrix equation $A' = E$. (Dutch) 81h:15024
 Winter, Jeffrey L. The matrix equation $X^n = A$. 81h:15022
 Zelisko, V. R. On the determination of generalized multipliers of a matrix polynomial. (Russian) 81c:15017

secondary classifications:

- Balins'kii, A. I. (with Zajačkovskii, V. S.) The property of generalized biorthogonality of eigenvectors of mutually adjoint polynomial operator pencils. (Russian) (81d:15004)
 Biales, Stanisław On the Lyapunov matrix equation. (81h:93077)
 Carlson, David H. (with Loewy, Raphael) Induced bilinear maps and matrix equations. (81j:15029)
 Hartwig, Robert E. Pseudolattice properties of the star-orthogonal partial ordering for star-regular rings. (81i:06024)
 Hudyi, M. I. See Tomeckii, M. I., (81h:65034)
 Kasperek, Erwin (with Kucharszewski, Mieczysław) Klein's geometry objects based on a certain matrix subgroup. (Polish. Russian and English summaries) (81b:51003)
 Kucharszewski, Mieczysław See Kasperek, Erwin, (81b:51003)
 Loewy, Raphael See Carlson, David H., (81j:15029)
 Rauhala, Urho A. Intuitive derivation of loop inverses and array algebra. (81h:65039)
 Ricci, Paolo Emilio Čebyšev polynomials in several variables. (Italian. English summary) (81e:41039)
 Sroćinski, Bronon Homogeneous linear objects of doubly pseudostochastic geometry. (Polish. Russian and English summaries) (81b:51005)
 Tomeckii, M. I. (with Hudyi, M. I.) An algorithm for solving certain matrix equations. (Russian) (81h:65034)
 Wilson, Edward L. Solution of sparse stiffness matrices for structural systems. (81j:73012)
 Young, N. J. Formulae for the solution of Lyapunov matrix equations. (81h:93018)
 Zajačkovskii, V. S. See Balins'kii, A. I., (81d:15004)

15A27 Commutativity

- Chō, Muneco (with Takaguchi, Makoto) Joint spectra of matrices. 81d:15006
 Courter, R. C. Maximal duo algebras of matrices. 81m:15013
 Datta, B. N. An algorithm for generating commuting matrices and its application. 81h:15015
 Pearcy, Carl (with Shields, Allen L.) Almost commuting matrices. 81c:15018
 Shields, Allen L. See Pearcy, Carl, 81c:15018
 Takaguchi, Makoto See Chō, Muneco, 81d:15006

secondary classifications:

- Hudyi, M. I. Decomposition of a polynomial matrix over a field of arbitrary characteristic. (Russian) (81h:15017)

- Zagorin, L. E. Commutative nilpotent algebras of matrices with real-quaternion elements. (Russian. English summary) (81j:15017)

15A30 Algebraic systems of matrices [See also 16A42, 20Gxx, 20Hxx]

- Anderson, William N., Jr. (with Trapp, George E.) Matrix operations induced by network connections. II. 81f:15025
 Barker, G. P. (with Carlson, David H.) Generalizations of top-heavy cones. 81h:15015
 Carlson, David H. See Barker, G. P., 81h:15015
 Hüseyin, Özyay See Özgüler, Bülent; et al., 81h:15012
 Kojima, Masakazu (with Saigal, Ramesh) A property of matrices with positive determinants. 81h:15016
 Özgüler, Bülent (with Sezer, Mesut E.; Hüseyin, Özyay) Relative primeness of multidimensional polynomial matrices. 81h:15012
 Saigal, Ramesh See Kojima, Masakazu, 81h:15016
 Sezer, Mesut E. See Özgüler, Bülent; et al., 81h:15012
 Trapp, George E. See Anderson, William N., Jr., 81h:15025
 Woronowicz, S. L. Positive maps of low dimensional matrix algebras. 81m:15014

secondary classifications:

- Adem, José On maximal sets of anticommuting matrices. (81h:15020)
 Bridges, W. G. (with Mena, R. A.) Rational circulants with rational spectra and cyclic strongly regular graphs. (81h:05022)
 Chollet, John See Marcus, Marvin, (81g:15007)
 Golberg, Israel (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. I. The finite-dimensional case. (81h:47027a)
 (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. II. The infinite-dimensional case. (81h:47027b)
 Isaacs, I. M. Automorphisms of matrix algebras over commutative rings. (81h:16006)
 Kaashoek, Marinus A. See Golberg, Israel; et al., (81h:47027a) and Golberg, Israel; et al., (81h:47027b)
 Kanetkar, Sharad V. (with Wagh, Meghnad D.) On construction of matrices with distinct submatrices. (81g:15018)
 Kaplansky, Irving Jacobson's lemma revisited. (81d:17006)
 Kraft, H. See Procesi, Claudio, (81h:14033)
 Malyšev, A. V. (with Pačev, U. M.) On the arithmetic of second-order matrices. (Russian) (81k:10032)
 Marcus, Marvin (with Chollet, John) Linear groups defined by decomposable tensor equalities. (81g:15007)
 Mena, R. A. See Bridges, W. G., (81h:05022)
 Pačev, U. M. See Malyšev, A. V., (81k:10032)
 Procesi, Claudio (with Kraft, H.) Conjugacy classes in $GL(n, C)$. (Italian) (81h:14033)
 Rodman, Leiba See Golberg, Israel; et al., (81h:47027a) and Golberg, Israel; et al., (81h:47027b)
 Vargas, J. A. Fixed points under the action of unipotent elements of SL_n in the flag variety. (81h:14027)
 Wagh, Meghnad D. See Kanetkar, Sharad V., (81g:15018)
 Wang, Kai On the generalizations of circulants. (81h:15022)

15A33 Matrices over special rings (quaternions, finite fields, etc.)

- Dai, Zong Duo The period of a circulant over a finite field. (Chinese) 81j:15016
 Guralnick, Robert M. A note on the local-global principle for similarity of matrices. 81g:15013
 Hudyi, M. I. Decomposition of a polynomial matrix over a field of arbitrary characteristic. (Russian) 81h:15017
 Mullen, Gary L. Equivalence classes of matrices over a finite field. 81h:15026
 Taussky, Olga More on norms from algebraic number fields, commutators and matrices which transform a rational matrix into its transpose. 81h:15023
 Thompson, Robert C. Interlacing inequalities for invariant factors. 81h:15014
 Uthas'ka, D. V. An algorithm for the completion of a one-row matrix to an invertible one over the ring $C[x]$ of polynomials. (Russian) 81h:15018
 Watters, J. F. Block triangularization of algebras of matrices. 81g:15015
 Zagorin, L. E. Commutative nilpotent algebras of matrices with real-quaternion elements. (Russian. English summary) 81j:15017

secondary classifications:

- Adikesavan, A. S. (with Narayanaswami, S.) A modification of Gola's binary sequence. (81k:05013)
 Courter, R. C. Maximal duo algebras of matrices. (81m:15013)
 Denes, J. (with Kim, Ki Hang; Roush, F. W.) The commutator subsemigroup of semigroup of binary relations. (81f:20099)
 Dupont, Jean-Pierre (with Dussaud, René; Idée, Edwige) Réduction des matrices inversibles d'un anneau euclidien. (81e:20057)
 Dussaud, René See Dupont, Jean-Pierre; et al., (81e:20057)
 Gibson, Peter M. Generalized doubly stochastic and permutation matrices over a ring. (81g:15024)
 Gondran, Michel (with Minoux, Michel) Eigenvalues and eigenvectors in semimodules and their interpretation in graph theory. (81h:15011)
 Idée, Edwige See Dupont, Jean-Pierre; et al., (81e:20057)
 Ilamed, Yehiel On realizations of vector products by polynomials which are identities for matrix rings. (81m:15021)
 Jungnickel, Dieter On difference matrices, resolvable transversal designs and generalized Hadamard matrices. (81k:05032)
 Kazimirs'kii, P. S. A solution to the problem of separating a regular factor from a matrix polynomial. (Russian) (81j:15013)
 Kim, Jin Bai The number of generalized inverses of a matrix. (81e:15003)

- (with Lee, Yong M.) Combinatorial properties of a fuzzy matrix semigroup. (81i:05012)
 Kim, Ki Hang (with Roush, F. W.) Clifford inverse semigroups and Boolean matrices. (81g:20113)

An extension of the Dulmage-Mendelsohn theorem. (81b:15021)

See also Denes, J.; et al. (81f:20099)

- Lee, Yong M. See Kim, Jia Bai. (81i:05012)
 Lempel, Abraham See Seroussi, Gadriel. (81k:15019)
 McDonald, Bernard R. GL_2 of rings with many units. (81k:20060)
 Meenakshi, Ar. On EP, matrices with entries from an arbitrary field. (81k:15024)
 Minoux, Michel See Goodran, Michel. (81k:15011)
 Narayanaswami, S. See Adikesavan, A. S. (81k:05013)
 Roush, F. W. See Denes, J.; et al. (81f:20099) and Kim, Ki Hang. (81g:20113)
 Saunders, B. David (with Schneider, Hans) Applications of the Gordan-Stiemke theorem in combinatorial matrix theory. (81e:15009)
 Schneider, Hans See Saunders, B. David. (81e:15009)
 Seroussi, Gadriel (with Lempel, Abraham) Factorization of symmetric matrices and trace-orthogonal bases in finite fields. (81k:15019)
 Smith, R. A. Subgroups of the general linear group over the field of quotients of a Dedekind ring. (Russian) (81f:20057)
 Sontag, Eduardo D. On generalized inverses of polynomial and other matrices. (81j:15007)
 Suprunenko, D. A. Nilpotent matrices and unipotent matrix groups over a division ring. (Russian. English summary) (81k:20069)
 Thoma, Karlheinz Die Untermoduln von $M(n, K)$. (81b:16042)

15A36 Matrices of integers [See also 10M20.]

- Bruadd, Richard A. (with Hedrick, Mark B.) A unified treatment of nearly reducible and nearly decomposable matrices. 81g:15016
 Matrices permutation equivalent to irreducible matrices and applications. 81g:15017
 Byrd, Ken (with Vaughan, Theresa P.) A group of integral points in a matrix parallelepiped. 81f:15027
 Hedrick, Mark B. See Bruadd, Richard A. 81g:15016
 Kanetkar, Sharad V. (with Wagh, Meghanad D.) On construction of matrices with distinct submatrices. 81g:15018
 Leighton, Frank Thomson (with Newman, Morris) Positive definite matrices and Catalan numbers. 81c:15019
 Newman, Morris On a problem suggested by Olga Taussky-Todd. 81b:15016
 See also Leighton, Frank Thomson. 81c:15019
 Taussky, Olga From cyclic algebras of quadratic fields to central polynomials. 81b:15017
 Thompson, Robert C. Invariant factors under rank one perturbations. 81f:15028
 Vaughan, Theresa P. See Byrd, Ken. 81f:15027
 Wagh, Meghanad D. See Kanetkar, Sharad V. 81g:15018
 Wang, Kai On the matrix equation $A^m = \lambda I$. 81j:15018

secondary classifications:

- Aharoni, Ron A problem in rearrangements of $(0, 1)$ matrices. (81i:05036)
 Bachem, Achim (with Kannan, Ravindran) Applications of polynomial Smith normal form calculations. (81i:90141)
 Baranyai, Zolt La coloration des arêtes des hypergraphes complets. II. La coloration équilibrée de K_n^k, \dots, K_n^k . (English summary) (81f:05127b)
 The edge-coloring of complete hypergraphs. I. (81f:05127a)
 Bazelow, Alexander R. (with Brickle, Frank) A combinatorial problem in music theory —Babbitt's partition problem. I. (81k:05023a)
 Bez, Magdolna Invertibility of a matrix of binomials. (Hungarian. Russian, German and English summaries) (81m:15003)
 Bosák, Juraj Directed graphs and matrix equations. (Russian summary) (81a:05089)
 Brickle, Frank See Bazelow, Alexander R. (81k:05023a)
 Bruadd, Richard A. (with Ross, Jeffrey A.) On Ryser's maximum term rank formula. (81e:15008)
 Carlson, John W. See Roth, David N. (81i:54002)
 Erickson, W. S. Inverse pairs of matrices with integer elements. (81i:65032)
 Kannan, Ravindran See Bachem, Achim. (81i:90141)
 Kim, Ki Hang (with Roush, F. W.) Some results on decidability of shift equivalence. (81m:58064)
 Newman, Morris Matrices of finite period and some special linear equations. (81a:15017)
 Ross, Jeffrey A. See Bruadd, Richard A. (81e:15008)
 Roth, David N. (with Carlson, John W.) Čech closure spaces. (81i:54002)
 Roush, F. W. See Kim, Ki Hang. (81m:58064)
 Schutte, H. J. Circulant matrices and integer determinants. (Afrikaans. English summary) (81i:15007)
 Starr, Daniel See Bazelow, Alexander R.; et al. (81k:05023a)
 Taussky, Olga Results concerning composition of sums of three squares. (81h:10027)

15A39 Linear inequalities

- Hiebert, Kathie L. Solving systems of linear equations and inequalities. 81i:15001
 Redheffer, Raymond (with Smith, Carey) On a surprising inequality of Goldberg and Straus. 81e:15006
 Searcy, J. L. (with Troesch, B. A.) Correction to: "A cyclic inequality and a related eigenvalue problem" [Pacific J. Math. 81 (1979), no. 1, 217-226; MR 80f:15019]. 81f:15029
 Smith, Carey See Redheffer, Raymond. 81e:15006
 Troesch, B. A. See Searcy, J. L. 81f:15029

secondary classifications:

- Berech, Adriana The generalized reflection method for linear inequalities. (81k:65033)

15A42 Inequalities involving eigenvalues and eigenvectors

- Ando, T. Hua-Marcus inequalities. 81h:15013
 Beesack, Paul R. The spread of matrices and polynomials. 81g:15019
 Davis, Chandler Extending the Kantorovič inequality to normal matrices. 81g:15020
 Greville, Thomas N. E. Bounds for eigenvalues of Hermitian Trench matrices. 81b:15018
 Lancellotti, Paola Estimates for the eigenvalues of Hermitian matrices. (Italian) 81c:15020
 Marques de Sá, E. On the diagonals of integral matrices. 81c:15021
 Meyer, D. (with Veselić, K.) On some new inclusion theorems for the eigenvalues of partitioned matrices. 81j:15019
 Newman, Morris Geršgorin revisited. 81e:15007
 Nicholson, D. W. Eigenvalue bounds for $AB + BA$, with A, B positive definite matrices. 81a:15018
 Novosad, Pedro (with Tovar, Raul) Spectral inequalities and G -functions. 81g:15021
 Stewart, G. W. A note on the perturbation of singular values. 81a:15019
 Tovar, Raul See Novosad, Pedro. 81g:15021
 Veselić, K. See Meyer, D. 81j:15019

secondary classifications:

- Avraham, Sara (with Loewy, Raphael) On the inertia of the Lyapunov transform $AH + HA^*$ for $H > 0$. (81e:15011)
 Esser, Friedrich (with Harary, Frank) On the spectrum of a complete multipartite graph. (81k:05075)
 Harary, Frank See Esser, Friedrich. (81k:05075)
 Keyzitz, Erwin Zur Einschließung von Eigenwerten hermitescher Matrizen beim Zweischrittverfahren. (81i:15021)
 Loewy, Raphael See Avraham, Sara. (81e:15011)
 Marshall, Albert W. (with Olkin, Ingram) ★Inequalities: theory of majorization and its applications. (81b:00002)
 Olkin, Ingram See Marshall, Albert W. (81b:00002)
 Stokov, E. L. The Hausdorff set of a matrix. (Russian) (81g:15029)
 Tong, Wen Ting The spectrum of the tensor product of matrices. (Chinese) (81f:15016)

15A45 Miscellaneous inequalities involving matrices

- Albrand, Hans-Jürgen Über die Lösungen der Gleichung $\rho^{(P)} = \|P\|_2$. 81c:15022
 Howard, Ralph Dimension inequalities on the range of a multilinear function with vector space rank. 81a:15020
 Markham, Thomas L. Two properties of M -matrices. 81b:15019
 Nishi, Akihiro Generalized Hadamard's inequalities and their applications to statistics. 81a:15021

secondary classifications:

- Ando, T. Inequalities for M -matrices. (81m:15015)
 Friedland, Shmuel (with Schneider, Hans) The growth of powers of a nonnegative matrix. (81e:65020)
 Lavoie, J.-L. A determinantal inequality involving the Moore-Penrose inverse. (81g:15001)
 Marcus, Marvin (with Moore, Kenneth) A subdeterminant inequality for normal matrices. (81g:15008)
 Marshall, Albert W. (with Olkin, Ingram) ★Inequalities: theory of majorization and its applications. (81b:00002)
 Memmi, Gérard (with Roucaïrol, G.) Linear algebra in net theory. (81i:68089)
 Moore, Kenneth See Marcus, Marvin. (81g:15008)
 Olkin, Ingram See Marshall, Albert W. (81b:00002)
 Rothblum, Uriel G. Bounds on the indices of the spectral-circle eigenvalues of a nonnegative matrix. (81b:15022)
 Roucaïrol, G. See Memmi, Gérard. (81i:68089)
 Schneider, Hans See Friedland, Shmuel. (81e:65020)
 Thompson, Robert C. Interlacing inequalities for invariant factors. (81g:15014)

15A48 Positive matrices and their generalizations

- Ando, T. Inequalities for M -matrices. 81m:15015
 Bruadd, Richard A. (with Ross, Jeffrey A.) On Ryser's maximum term rank formula. 81e:15008
 (with Ross, Jeffrey A.) On the exponent of a primitive, nearly reducible matrix. 81f:15030
 Christensen, Jens Peter Reus (with Ressel, Paul) Functions operating on positive definite matrices and a theorem of Schoenberg. 81f:15031
 Cohen, Joel E. Random evolutions and the spectral radius of a nonnegative matrix. 81c:15023
 Ferland, Jacques A. Positive subdefinite matrices. 81j:15020
 Goel, V. K. See Jain, S. K. 81b:15020
 Jain, S. K. (with Goel, V. K.) Nonnegative matrices having nonnegative Drazin pseudoinverses. 81b:15020
 Kim, Ki Hang An extension of the Dulmage-Mendelsohn theorem. 81b:15021
 Ljubić, Ju. I. A general form of nonnegative projectors in \mathbb{R}^n . (Russian) 81g:15022
 Meenakshi, Ar. On EP, matrices with entries from an arbitrary field. 81k:15024
 Neumann, Michael (with Plemmons, Robert J.) Generalized inverse-positivity and splittings of M -matrices. 81j:15021
 Pang, Jong Shi On discovering hidden Z -matrices. 81c:15024
 Plemmons, Robert J. See Neumann, Michael. 81j:15021

Pretzel, Oliver Convergence of the iterative scaling procedure for nonnegative matrices. 81j:15022

Remel, Paul See Christensen, Jens Peter Reus, 81f:15031

Rom, Jeffrey A. See Brualdi, Richard A., 81e:15006 and Brualdi, Richard A., 81f:15030

Rothblum, Uriel G. Bounds on the indices of the spectral-circle eigenvalues of a nonnegative matrix. 81b:15022

Saunders, D. David (with Schneider, Hans) Applications of the Gordan-Stiemke theorem in combinatorial matrix theory. 81e:15009

Schneider, Hans See Saunders, D. David, 81e:15009

secondary classifications:

Anderson, Ned (with Saff, E. B.; Varga, Richard S.) On the Eneström-Kakeya theorem and its sharpness. (81b:26011)

Avraham, Sara (with Loewy, Raphael) On the inertia of the Lyapunov transform $AH + HA^*$ for $H > 0$. (81e:15011)

Fujimoto, T. Addendum to: "Nonlinear generalization of the Frobenius theorem" [J. Math. Econom. 6 (1979), no. 1, 17-21; MR 80h:90022]. (81i:90027)

Garey, Lawrence Differences of EPr nonnegative matrices. (81m:65057)

Leighton, Frank Thomson (with Newman, Morris) Positive definite matrices and Catalan numbers. (81e:15019)

Lewin, Mordechai (with Neumann, Michael) On the inverse M -matrix problem for $(0, 1)$ -matrices. (81i:15004)

Loewy, Raphael See Avraham, Sara, (81e:15011)

Neumann, Michael See Lewin, Mordechai, (81i:15004)

Newman, Morris See Leighton, Frank Thomson, (81e:15019)

Nicholson, D. W. Eigenvalue bounds for $AB + BA$, with A, B positive definite matrices. (81a:15018)

Nomakuchi, Kentaro On the characterization of generalized inverses by bordered matrices. (81j:15006)

Pye, Wallace C. Nonnegative Drazin inverses. (81g:15002)

Saff, E. B. See Anderson, Ned; et al., (81b:26011)

Varga, Richard S. See Anderson, Ned; et al., (81b:26011)

You, Zhao Yong Block estimation of the spectral radius of a matrix. (Chinese) (81g:15011)

15A51 Stochastic matrices

Aharoni, Ron Extreme symmetric doubly stochastic matrices. 81i:15019

Bapat, R. B. (with Raghavan, T. E. S.) On diagonal products of doubly stochastic matrices. 81e:15010

Brualdi, Richard A. Matrices of 0's and 1's with total support. 81g:15023

Clapp, Michael H. (with Shiftlett, Ray C.) A Birkhoff theorem for doubly stochastic matrices with vector entries. 81f:15032

Cruse, Allan B. On removing a vertex from the assignment polytope. 81j:15023

Gibson, Peter M. Generalized doubly stochastic and permutation matrices over a ring. 81j:15024

Johnson, E. C. Stochastic matrices. I. Similarity via stochastic transforms. 81b:15023

Kim, Jin Bai On essentially doubly stochastic matrices. 81e:15025

Raghavan, T. E. S. See Bapat, R. B., 81e:15010

Shiftlett, Ray C. See Clapp, Michael H., 81f:15032

secondary classifications:

Bye, Barry V. See Hennessey, John C., (81m:60125)

Chen, Jia Ding See Hsi, Pao Lu; et al., (81c:60080)

Cohen, Joel E. Random evolutions and the spectral radius of a nonnegative matrix. (81e:15023)

Felzenbaum, A. (with Tamir, Arie) Cyclic permutations and nearly symmetric integer vectors. (81g:90064)

Foregger, Thomas H. On the minimum value of the permanent of a nearly decomposable doubly stochastic matrix. (81g:15005)

Friedland, Shmuel A lower bound for the permanent of a doubly stochastic matrix. (81i:15006)

Frydman, Halina A structure of the bang-bang representation for 3×3 embeddable matrices. (81m:60138)

Gibson, Peter M. Permenal polytopes of doubly stochastic matrices. (81j:15008)

Hennessey, John C. (with Bye, Barry V.) Necessary and sufficient conditions for a matrix to be causative in a nonstationary Markov chain. (81m:60125)

Hsi, Pao Lu (with Chen, Jia Ding; Zheng, Zhang Guo) The coincidence property of stochastic matrices. (Chinese. English summary) (81c:60080)

Matek-Shahmirzadi, Masoud Application of Neumann's lemma to the minimum and characteristic polynomials. (81a:15012)

On a conjecture by D. Ž. Djoković. (81b:15007)

Minc, Henryk An asymptotic solution of the multidimensional dimer problem. (81e:82063)

Ruch, Ernst (with Schraner, Rudolf; Seligman, Thomas H.) Generalization of a theorem by Hardy, Littlewood, and Pólya. (81m:26015)

Schraner, Rudolf See Ruch, Ernst; et al., (81m:26015)

Seligman, Thomas H. See Ruch, Ernst; et al., (81m:26015)

Sgarro, Andrea An informational divergence geometry for stochastic matrices. (81i:94010)

Sinkhorn, Richard Concerning the question of monotonicity of the permanent on the doubly stochastic matrices. (81e:15004)

Szociński, Brunon Homogeneous linear objects of doubly pseudostochastic geometry. (Polish. Russian and English summaries) (81b:51005)

Tamir, Arie See Felzenbaum, A., (81g:90064)

Zhang, Jia Ju Some properties of the M -matrices. (Chinese. English summary) (81i:15023)

Zheng, Zhang Guo See Hsi, Pao Lu; et al., (81c:60080)

15A52 Random matrices

Juhász, Ferenc On the spectrum of a symmetric random $(0, 1)$ matrix. (Hungarian. English summary) 81m:15016

Rivzi, M. Haseeb (with Shorrock, R. W.) A note on matrix-convexity. (French summary) 81b:15024

Shorrock, R. W. See Rivzi, M. Haseeb, 81b:15024

secondary classifications:

Cohen, Joel E. Convexity properties of products of random nonnegative matrices. (81m:82002)

McDonald, J. F. Some mathematically simple ensembles of random matrices which represent Hamiltonians with a small time-reversal-noninvariant part. (Italian and Russian summaries) (81e:82075)

Ullah, Nazakat The correct form of the single-eigenvalue distribution for the non-zero mean-matrix ensembles. (81k:62074)

15A54 Matrices over function rings in one or more variables

Cordón, J. A. On the nonvanishing of determinants of confluent Vandermonde matrices. (Spanish) 81m:15017

Friedland, Shmuel On pointwise and analytic similarity of matrices. 81g:15025

Verbickli, B. V. A global property of matrix-valued functions that depend on several variables. (Russian) 81a:15022

secondary classifications:

Bar-Ness, Y. See Feinstein, J., (81k:93033)

Feinstein, J. (with Bar-Ness, Y.) On the uniqueness of the minimal solution to the matrix polynomial equation $A(\lambda)X(\lambda) + Y(\lambda)B(\lambda) = C(\lambda)$. (81k:93033)

Guralnick, Robert M. A note on the local-global principle for similarity of matrices. (81g:15013)

Hayton, G. E. The generalized resultant matrix. (81k:93034)

Melnik, O. M. Semiscalar equivalence of polynomial matrices. (Russian) (81k:15018)

Puystjens, R. (with de Smet, H.) The Moore-Penrose inverse for matrices over skew polynomial rings. (81m:15005)

de Smet, H. See Puystjens, R., (81m:15005)

Wong, Chi Song Matrix derivatives and its applications in statistics. (81m:62105)

Zelisko, V. R. Construction of a class of invertible matrices. (Russian) (81i:15010)

15A57 Other types of matrices (Hermitian, skew-Hermitian, etc.)

Adamjan, V. M. (with Arov, D. Z.; Krein, M. G.) Infinite Hankel block matrices and related extension problems. (See 80c:00006)

Arov, D. Z. See Adamjan, V. M.; et al., (See 80c:00006)

Avraham, Sara (with Loewy, Raphael) On the inertia of the Lyapunov transform $AH + HA^*$ for $H > 0$. 81e:15011

de Bruijn, N. G. Remarks on Hermitian matrices. 81g:15026

Ferguson, Warren E., Jr. The construction of Jacobi and periodic Jacobi matrices with prescribed spectra. 81a:15023

Heinig, Georg Transformationen von Toeplitz- und Hankelmatriizen. 81k:15025

Hochstadt, Harry On the construction of a Jacobi matrix from mixed given data. 81a:15024

Iohvidov, I. S. The (r, k) -characteristics of rectangular Hankel matrices. (Russian) 81j:15024

(with Tolstykh, O. D.) On the (r, k, l) -characteristics of rectangular Toeplitz matrices. (Russian) 81i:15020

Khatri, C. G. Powers of matrices and idempotency. 81j:15025

Krein, M. G. See Adamjan, V. M.; et al., (See 80c:00006)

Kreyszig, Erwin Zur Einschließung von Eigenwerten hermitescher Matrizen beim Zweischrittverfahren. 81i:15021

Lee, Anna Centro-Hermitian and skew-centro-Hermitian matrices. 81h:15014

Loewy, Raphael See Avraham, Sara, 81e:15011

McCarthy, David (with McKay, Brendan D.) Transposable and symmetrizable matrices. 81m:15018

McKay, Brendan D. See McCarthy, David, 81m:15018

Okuguchi, Koji Matrices with dominant diagonal blocks and economic theory. 81f:15033

Pustyl'nikov, L. D. The algebraic structure of spaces of Toeplitz and Hankel matrices. (Russian) 81g:15027

Sampson, Allan R. Nonnegative Cholesky decomposition and its application to association of random variables. 81j:15026

Schmidt, Garfield C. An "almost algebraic" proof of the spectral theorem for R^n . 81b:15025

Tolstykh, O. D. Extensions of rectangular Toeplitz matrices. (Russian) 81k:15026

See also Iohvidov, I. S., 81i:15020

Wang, Kai On the generalizations of circulant matrices. 81i:15022

de Werra, Dominique On some characterisations of totally unimodular matrices. 81m:15019

Zhang, Jia Ju Some properties of the M -matrices. (Chinese. English summary) 81i:15023

secondary classifications:

Arbib, Michael A. (with Manes, Ernest G.) Generalized Hankel matrices and system realization. (81m:93007)

Au-Yeung, Yik Hoi (with Poon, Yiu Tung) 3×3 orthostochastic matrices and the convexity of generalized numerical ranges. (81a:15025)

Brown, David P. Compound connection matrices. (81m:05041)

Bush, K. A. On Hadamard embeddability. (81g:05032)

- Caballero, Carlos See Valdés, Pedro; et al., (81m:65056)
- Dai, Zong Duo The period of a circulant over a finite field. (Chinese) (81j:15016)
- Davis, Philip J. ★ Circulant matrices. (81a:15003)
- Dostál, Zdeněk A note on estimate of the spectral radius of symmetric matrices. (81i:15024)
- Ferrer, Cristina See Valdés, Pedro; et al., (81m:65056)
- Garey, Lawrence Differences of EPR nonnegative matrices. (81m:65057)
- Greville, Thomas N. E. (with Trench, William F.) Band matrices with Toeplitz inverses. (81e:15002)
- Bounds for eigenvalues of Hermitian Trench matrices. (81b:15018)
- Habetler, George J. (with Kostreva, Michael M.) Sets of generalized complementarity problems and P -matrices. (81i:90188)
- Kostreva, Michael M. See Habetler, George J., (81i:90188)
- Leon, Jeffrey S. An algorithm for computing the automorphism group of a Hadamard matrix. (81f:05033)
- Li-Gjun-Y Inversion and reconstruction of Toeplitz matrices. (Russian) (81j:15005)
- Liu, Chang An An expression of symplectic matrices as a product of symplectic transvections. (81h:20062)
- Manes, Ernest G. See Arbib, Michael A., (81m:93007)
- Markham, Thomas L. Two properties of M -matrices. (81b:15019)
- Marrasini, C. Characterization of the inverse of a particular circulant matrix by means of a continued fraction. (81f:15009)
- Meek, D. S. The inverses of some matrices deviating slightly from a symmetric, tridiagonal, Toeplitz form. (81a:65040)
- Narzulava, H. N. On the neighborhood of the DOTU-matrices. (Russian. English summary) (81f:10045)
- Newman, Morris On a problem suggested by Olga Taussky-Todd. (81b:15016)
- Poon, Yiu Tung See Au-Yeung, Yik Hoi, (81a:15025)
- Scarpellini, Bruno Hilbertraum-Approximation und Jacobi-Matrizen. (English summary) (81k:41029)
- Shanno, D. F. On variable-metric methods for sparse Hessians. (81j:65077)
- Shapiro, H. (with Taussky, Olga) Alternative proofs of a theorem of Moys and Marcus on the numerical range of a square matrix. (81f:15034)
- Taussky, Olga See Shapiro, H., (81f:15034)
- Trench, William F. See Greville, Thomas N. E., (81e:15002)
- Valdés, Pedro (with Caballero, Carlos; Ferrer, Cristina) A procedure for the calculation of the eigenvalues and eigenvectors of a Hermitian matrix. (Spanish) (81m:65056)

15A60 Norms of matrices, numerical range, applications of functional analysis to matrix theory [See also 65F35, 65J05.]

- An-Yeung, Yik Hoi (with Poon, Yiu Tung) 3×3 orthostochastic matrices and the convexity of generalized numerical ranges. 81a:15026
- (with Poon, Yiu Tung) A remark on the convexity and positive definiteness concerning Hermitian matrices. 81c:15026
- Barker, G. P. See Luke, Yudell L., 81d:15008
- (Calvert, Bruce) See Neudecker, H., 81c:15027
- Deutsch, Emerie On certain generalized matrix norms. 81e:15012
- Dostál, Zdeněk l_∞ -norm of iterates and the spectral radius of matrices. (Czech summary) 81j:15027
- A note on estimate of the spectral radius of symmetric matrices. 81i:15024
- Grose, Robert Certain isometries of rectangular complex matrices. 81d:15007
- Johnson, Charles R. Power inequalities and spectral dominance of generalized matrix norms. 81f:15025
- Luke, Yudell L. (with Barker, G. P.) On asymptotic expansions for functions of matrix argument. 81d:15008
- Marcus, Marvin Some combinatorial aspects of numerical range. 81g:15028
- Martínez, José Mario A bound for the Moore-Penrose pseudoinverse of a matrix. 81j:15028
- Neudecker, H. A comment on: "Minimization of functions of a positive semidefinite matrix A subject to $AX=0$ " [J. Multivariate Anal. 8 (1978), no. 2, 274-281; MR 80 #3210] by B. Calvert and G. A. F. Seber. 81c:15027
- Poon, Yiu Tung Another proof of a result of Westwick. 81b:15015
- See also An-Yeung, Yik Hoi, 81a:15025 and An-Yeung, Yik Hoi, 81c:15026
- Pišk, Vlastimil A lower bound for the spectral radius. 81k:15027
- (Seber, G. A. F.) See Neudecker, H., 81c:15027
- Shapiro, H. (with Taussky, Olga) Alternative proofs of a theorem of Moys and Marcus on the numerical range of a square matrix. 81f:15034
- Stolov, E. L. The Hausdorff set of a matrix. (Russian) 81g:15029
- Taussky, Olga See Shapiro, H., 81f:15034

secondary classifications:

- Faddeev, D. K. Estimation of the domain containing the solution of a system of linear algebraic equations. (Russian) (81j:15004)
- Nowosad, Pedro (with Tovar, Raúl) Spectral inequalities and G -functions. (81g:15021)
- Okaguchi, Koji Matrices with dominant diagonal blocks and economic theory. (81f:15033)
- Thompson, Robert C. The congruence numerical range. (81b:15026)
- Tovar, Raúl See Nowosad, Pedro, (81g:15021)

15A63 Quadratic and bilinear forms, inner products [See mainly 10Cxx.]

- Anderson, T. W. (with Taylor, John B.) An inequality for a sum of quadratic forms with applications to probability theory. 81m:15020
- Becker, Ronald I. Necessary and sufficient conditions for the simultaneous diagonality of two quadratic forms. 81g:15030
- Carlson, David H. (with Loewy, Raphael) Induced bilinear maps and matrix equations. 81j:15029
- Hamad, Yehiel On realizations of vector products by polynomials which are identities for

matrix rings. 81m:15021

- Krus, M. A. (with Ojanguren, M.; Sridharan, R.) Quadratic forms and Azumaya algebras. 81h:15016

- Loewy, Raphael See Carlson, David H., 81j:15029
- Micali, Artibano (with Revoy, Ph.) Modules quadratiques. 81f:15035
- Ojanguren, M. See Krus, M. A.; et al., 81h:15016
- Revoy, Ph. See Micali, Artibano, 81f:15035
- Sridharan, R. See Krus, M. A.; et al., 81h:15016
- Taylor, John B. See Anderson, T. W., 81m:15020
- Thompson, Robert C. The congruence numerical range. 81b:15026

secondary classifications:

- Bini, Werner Inner product spaces of infinite dimension; on the lattice method. (81f:10026)
- Bennett, James G. Induced representations of C^* -algebras and complete positivity. (81h:46068)
- Conner, Pierre E. ★ Notes on the Witt classification of Hermitian innerproduct spaces over a ring of algebraic integers. (81i:10026)
- Dye, Roger H. On the maximality of the orthogonal groups in the symplectic groups in characteristic two. (81h:20060)
- Earnest, A. G. (with Estes, Dennis R.) Class groups in the genus and spinor genus of binary quadratic lattices. (81i:10025)
- Estes, Dennis R. See Earnest, A. G., (81i:10025)
- Fulton, John D. Gauss sums and solutions to simultaneous equations over $GF(2^n)$. (81c:12033)
- Gibbs, David E. The computation of $W_\pi(\pi, \omega; \mathbb{Z})$ for π an abelian 2-group. (81h:10030)
- v. Golitschek, Manfred An algorithm for scaling matrices and computing the minimum cycle mean in a digraph. (81k:65047)
- Gross, Herbert ★ Quadratic forms in infinite-dimensional vector spaces. (81f:10027)
- Hashimoto, Ki-ichiro On Brandt matrices associated with the positive definite quaternion Hermitian forms. (81i:10033)
- Haugetzen, Yves Application du théorème de Sylvester à la localisation des valeurs propres de $AX = \lambda BX$ dans le cas symétrique. (English summary) (81m:65052)
- Ishibashi, Hiroyuki Generators of $U_c(V)$ over a quasi-semilocal semihereditary domain. (81e:14030)
- Ja'Ja', Joseph On the complexity of bilinear forms with commutativity. (81d:68058)
- Kasahara, Shouro Linear independency of linear space valued mappings and pseudo-inner-products. (81j:15002)
- Kašin, B. S. A property of bilinear forms. (Russian. Georgian and English summaries) (81j:41054)
- Knebusch, M. Signaturen, reelle Stellen und reduzierte quadratische Formen. (81k:10031)
- Küefoglu, Ayse Soysal The second degree cohomology of finite orthogonal groups. II. (81m:20067)
- Lee, Y. C. A Witt's theorem for unimodular lattices. (81a:10032)
- Lester, J. A. A characterization of non-Euclidean non-Minkowskian inner product space isometries. (81f:51014)
- Morin-Strom, Karl A. Witt's theorem for modular lattices. (81d:10013)
- Nakamura, Yoshio On Witt algebras over a field, especially of characteristic 2. (81m:10040)
- Solow, Anita E. The square class invariant for quadratic forms and the classification problem. (81m:10033)
- Vilms, Jank Factorization of curvature operators. (81g:53034)
- Wagner, Richard C. On odd Hermitian forms. (81c:10025)
- Weisfeller, Boris Abstract monomorphisms between big subgroups of some groups of type B_2 in characteristic 2. (81c:20050)

15A66 Clifford algebras

- Brooke, J. A. A Galilean formulation of spin. II. Explicit realizations. 81g:15031
- Edwards, Bruce H. On classifying Clifford algebras. 81b:15027
- Jaganathan, R. Contributions to Clifford algebra, its generalizations and new kinds of representations of Dirac equation. 81f:15036
- Lavmama, Eako See Lounesto, Pertti, 81h:15017
- Lounesto, Pertti Sur les idéaux à gauche des algèbres de Clifford et les produits scalaires des spineurs. 81m:15022
- (with Lavmama, Eako) Conformal transformations and Clifford algebras. 81h:15017
- Vescan, Agneta On the algebraic foundations of spinor theory. (Hungarian) 81h:15018

secondary classifications:

- Adem, José On maximal sets of anticommuting matrices. (81k:15020)
- Bugajska, Krystyna Geometrical interpretation of spinors. (81d:83006)
- Spinor structure of space-time. (81c:53046)
- Frescura, F. A. M. (with Hiley, B. J.) The implicate order, algebras, and the spinor. (81d:81007)
- Greider, K. Relativistic quantum theory with correct conservation laws. (81d:81140)
- Hiley, B. J. See Frescura, F. A. M., (81d:81007)
- Kim, Ki Hang (with Roush, F. W.) Clifford inverse semigroups and Boolean matrices. (81g:20113)
- Roush, F. W. See Kim, Ki Hang, (81g:20113)
- Salingaros, Nikos Realization and classification of the universal Clifford algebras as associative Lie-admissible algebras. (81d:16026)

15A69 Multilinear algebra, tensor products

- Ja'Ja', Joseph An addendum to Kronecker's theory of pencils. 81e:15013
- Kuo, Wang Yüeh O. The use of tensor products of matrices in mathematical sciences. 81m:15023

- Loewy, Raphael Quadratic forms on completely symmetric spaces. **81e:15014**
 Magnus, Jan R. (with Neudecker, H.) The commutation matrix: some properties and applications. **81f:15037**
 Mazanova, G. A. Geometric properties of two totally commutative nilpotent affinors. (Russian) **81a:15026**
 Neudecker, H. See Magnus, Jan R., **81f:15037**

secondary classifications:

- Dias da Silva, J. A. On the Schur inequality. (**81c:15009**)
 Howard, Ralph Dimension inequalities on the range of a multilinear function with vector space range. (**81a:15020**)
 James, Gordon D. The decomposition of tensors over fields of prime characteristic. (**81h:20015**)
 Kim, Shoon K. The theory of spinors via involutions and its application to the representations of the Lorentz group. (**81g:81032**)
 Morris, Russell Applications of spherical functions in multilinear algebra. (**81f:20010**)
 Derivatives of induced operators on symmetry classes of tensors. (**81a:15006**)
 Okata, W. Some properties of block matrices of models based on hierarchical and crossed classifications. (**81h:62137**)
 Saitoh, Saburo Some inequalities for entire functions. (**81i:30049**)

15A72 Vector and tensor algebra, theory of invariants

- Atkinson, M. D. (with Lloyd, S.) Bounds on the ranks of some 3-tensors. **81k:15028**
 Formanek, Edward The center of the ring of 4×4 generic matrices. **81g:15032**
 Hoffman, W. Cary Polynomial invariants of finite linear groups of degree two. **81g:15033**
 Lloyd, S. See Atkinson, M. D., **81k:15028**
 Morris, Russell Pattern inventories associated with symmetry classes of tensors. **81e:15015**

secondary classifications:

- Almkvist, Gert Invariants, mostly old ones. (**81j:14029**)
 Chollet, John See Marcus, Marvin, (**81g:15007**)
 de Concini, C. (with Eisenbud, David; Procesi, Claudio) Young diagrams and determinantal varieties. (**81m:14034**)
 Donkin, Stephen Hopf complements and injective comodules for algebraic groups. (**81f:20053**)
 Eisenbud, David See de Concini, C.; et al., (**81m:14034**)
 Fauntleroy, A. Algebraic and algebrogeometric interpretations of Weitzenböck's problem. (**81j:14028**)
 Godunov, S. K. ★Теория спиноров и представлений группы вращений. (Russian) [Theory of spinors and representations of the rotation group] (**81j:22025**)
 Kempf, George R. Some quotient surfaces are smooth. (**81m:14009**)
 Kuo, Wang Yüeh O. A note on matrix games and dual systems of real homogeneous linear equations. (**81e:90109**)
 Marcus, Marvin (with Chollet, John) Linear groups defined by decomposable tensor equalities. (**81g:15007**)
 Onuki, Kazuo On the microlocal structure of the regular prehomogeneous vector space associated with $SL(5) \times GL(4)$. I. (**81k:20057**)
 On the microlocal structure of a regular prehomogeneous vector space associated with $GL(8)$. (**81k:20058**)
 Popov, V. I. On Hilbert's theorem on invariants. (Russian) (**81e:14029**)
 Procesi, Claudio Young diagrams, standard monomials and invariant theory. (**81e:14032**)
 See also de Concini, C.; et al., (**81m:14034**)
 Resco, Richard A reduction theorem for the primitivity of tensor products. (**81h:16016**)
 Saito, Kyoji (with Yano, Tamaki; Sekiguchi, Jirō) On a certain generator system of the ring of invariants of a finite reflection group. (**81g:20095**)
 Sekiguchi, Jirō See Saito, Kyoji; et al., (**81g:20095**)
 Stanley, Richard P. Invariants of finite groups and their applications to combinatorics. (**81a:20015**)
 Verma, Daya-Nand On a classical stability result on invariants of isotypical modules. (**81j:20060**)
 Yano, Tamaki See Saito, Kyoji; et al., (**81g:20095**)

15A75 Exterior algebra, Grassmann algebras

- Chan, G. H. Permutations on Grassmann spaces. **81b:15028**
 Gurevich, G. B. Canonical trivectors to which a basic rule is applicable. (Russian) **81d:15009**
 Comparison of two rules for establishing a characteristic of trivectors. (Russian) **81d:15010**
 Kamefuchi, S. See Ohnuki, Y., **81g:15035a** and Ohnuki, Y., **81g:15035b**
 MacDougall, J. A. A note on the length of trivectors. **81g:15034**
 Ohnuki, Y. (with Kamefuchi, S.) Generalized Grassmann algebras with applications to Fermi systems. **81g:15035a**
 (with Kamefuchi, S.) Para-Grassmann algebras with applications to para-Fermi systems. **81g:15035b**
 Vanstone, J. R. Some new identities in mixed exterior algebra. **81b:15019**
 Westwick, R. The maximal length of real trivectors of rank seven. **81m:15024**

secondary classifications:

- Biras, R. R. Multivector analysis. I. A comparison with tensor algebra. (**81m:82035a**)
 Multivector analysis. II. A comparison with vector algebra. (**81m:82035b**)
 Estes, Dennis R. (with Matijević, Jacob R.) Matrix factorizations, exterior powers, and complete intersections. (**81d:13012**)
 Matijević, Jacob R. See Estes, Dennis R., (**81d:13012**)

- Prikarpatskii, A. K. Geometric structure and Bäcklund transformation of a system of nonlinear partial differential evolution equations. (Russian) (**81h:58007**)
 Zoltek, Stanley M. Nonnegative curvature operators: some nontrivial examples. (**81m:53037**)
 A normal form for a special class of curvature operators. (**81f:53018**)

15A78 Other algebras built from modules

- Okoh, Frank No system of uncountable rank is purely simple. **81e:15028**

secondary classifications:

- James, David G. On the automorphisms of $\det(x_{ij})$. (**81m:10044**)
 O'Meara, O. T. A survey of the isomorphism theory of the classical groups. (**81m:10045**)

15A90 Applications to physics

- Norton, J. P. Structural zeros in the modal matrix and its inverse. **81m:15025**

secondary classifications:

- Griesel, Heinz Vektorsysteme über einem Größensystem. (**81a:00021**)
 Kim, Shoon K. A new method of matrix transformation. I. Matrix diagonalizations via involutorial transformations. (**81j:15015a**)
 A new method of matrix transformations. II. General theory of matrix diagonalizations via reduced characteristic equations and its application to angular momentum coupling. (**81j:15015b**)
 Tadeusiewicz, Michał Uniqueness of solutions for the equations of nonlinear resistive networks. (Polish. Russian and English summaries) (**81i:94027**)
 Tekumalla, A. R. Unitary diagonalisation of a class of matrices. (**81f:81026**)

15A99 Miscellaneous topics

- Černjavskaja, L. V. (with Palenická, R. M.) A method for finding the roots of a characteristic polynomial. (Russian) **81k:15026**
 Kim, Ki Hang (with Roush, Fred W.) Generalized fuzzy matrices. **81i:15027**
 Palenická, R. M. See Černjavskaja, L. V., **81k:15026**
 Roush, Fred W. See Kim, Ki Hang, **81i:15027**
 Schramm, Ruben On the number of solutions of piecewise linear equations. **81f:15038**

secondary classifications:

- Berna, T. J. See Westerberg, A. W., (**81h:65042**)
 Bessmertnyi, M. F. Transfer matrices of linear structures and factorization of J -expanding functions of two variables. (Russian) (**81b:94056**)
 Dowdy, James E. See Kim, Jin Bai, (**81k:15006**)
 Flanchec, Annick (with Wielgosz, C.) Algèbre de l'analyse dimensionnelle. (English and Russian summaries) (**81j:39023**)
 Fujikoshi, Yasunori See Okamoto, Masashi, (**81m:62088**)
 v. Golitschek, Manfred Approximation of functions of two variables by the sum of two functions of one variable. (**81j:41053**)
 Kim, Jin Bai (with Dowdy, James E.) Determinants of n -dimensional matrices. (**81k:15006**)
 Knight, M. J. A generalization of a result of Sylvester's. (**81j:10019**)
 Lemmens, P. W. H. A note on configurations of lines. (**81g:51013**)
 Lovász, László Topological and algebraic methods in graph theory. (**81b:05096**)
 Makar, Boshra H. Transfinite cryptography. (**81g:94043**)
 Morris, Russell Manifestations of Pólya's counting theorem. (**81g:05014**)
 Morel, Paul Diverses données spectrales pour le problème inverse discret de Sturm-Liouville. (**81e:39002**)
 Okamoto, Masashi (with Fujikoshi, Yasunori) Perturbation of a matrix function and its application to multivariate analysis. (**81m:62088**)
 Puri, Narindra Nath See Sannuti, Peddapullaiah, (**81j:94052**)
 Ribenboim, Paulo Vector space graphs. (**81h:05114**)
 Sannuti, Peddapullaiah (with Puri, Narindra Nath) Symbolic network analysis—an algebraic formulation. (**81j:94052**)
 Westerberg, A. W. (with Berna, T. J.) LASCALA—a language for large scale linear algebra. (**81h:65042**)
 Wielgosz, C. See Flanchec, Annick, (**81j:00023**)

16-XX ASSOCIATIVE RINGS AND ALGEBRAS (For the commutative case, see 13-XX.)

16-01 Elementary exposition, textbooks

- Droz, Ju. A. (with Kirichenko, V. V.) ★Конечномерные алгебры. (Russian) [Finite-dimensional algebras] **81j:16001**
 Kirichenko, V. V. See Drozd, Ju. A., **81j:16001**

16-02 Advanced exposition (research surveys, monographs, etc.)

- Bergman, George M. The diamond lemma for ring theory. **81b:16001**
 Bokut', L. A. Decision problems for ring theory. **81k:16001**
 Brauer, Richard Algebra der hyperkomplexen Zahlensysteme (Algebren). **81m:16001**
 (Cukerman, G. M.) See Faith, Carl C., **81a:16001**
 (Dorofeeva, M. P.) See Faith, Carl C., **81a:16001**
 Faith, Carl C. ★Алгебра: кольца, модули и категории. II. (Russian) [Algebra: rings, modules and categories. II] **81a:16001**
 Fisher, Joe W. (with Osterburg, James) Finite group actions on noncommutative rings.

a survey since 1970. **81i:16001**

- Golan, Jonathan S. ★Structure sheaves over a noncommutative ring. **81i:16002**
 Goldie, Alfred A survey of progress in noncommutative Noetherian rings. **81i:16002**
 (Kofman, L. A.) See Faith, Carl C., **81a:16001**
 Maury, Guy (with Raynaud, Jacques) ★Ordres maximaux au sens de K. Asano. (French) [Maximal orders in the sense of K. Asano] **81m:16002**
 (Mihalev, A. V.) See Faith, Carl C., **81a:16001**
 Osterburg, James See Fisher, Joe W., **81i:16001**
 Paseman, Donald S. ★The algebraic structure of group rings. **81d:16001**
 Raynaud, Jacques See Maury, Guy, **81m:16002**
 Roggenkamp, Klaus W. The lattice type of orders: a diagrammatic approach. I. **81m:16003**
 (Skornjakov, L. A.) See Faith, Carl C., **81a:16001**
 (Tol'skaja, T. S.) See Faith, Carl C., **81a:16001**

16-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- Brauer, Richard ★Collected papers. Vol. I. (**81i:01017a**)
 (Fong, Paul) See Brauer, Richard, (**81i:01017a**)
 (Goldman, O.) See Brauer, Richard, (**81i:01017a**)
 (Green, J. A.) See Brauer, Richard, (**81i:01017a**)
 (Wong, Warren J.) See Brauer, Richard, (**81i:01017a**)
 Bibliography:
 Brauer, Richard Dagobert See Brauer, Richard, (**81i:01017a**)
 Biography:
 Brauer, Richard Dagobert See Brauer, Richard, (**81i:01017a**)

16-04 Explicit machine computation and programs (not the theory of computation or programming)

16-06 Proceedings, conferences, etc.

- (Dubreil, Paul) See Séminaire: Algèbre Paul Dubreil et Marie-Paule Malliavin, **81i:16001**
 (Harada, Manabu) See Proceedings: Symposium on Ring Theory, **81a:16002**
 (Malliavin-Brammeret, Marie-Paule) See Séminaire: Algèbre Paul Dubreil et Marie-Paule Malliavin, **81i:16001**
 (McDonald, Bernard R.) See Ring theory and algebra, **81h:16001**
 (van Oystaeyen, F.) See Ring theory, **81i:16002**
 (Tomimaga, Hisao) See Proceedings: Symposium on Ring Theory, **81m:16004**
 Algebra ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] **81i:16001**
 ★Ring theory and algebra. III. **81h:16001**
 Antwerp ★Ring theory, Antwerp 1980. **81i:16002**
 Conference:
 Oklahoma, Ring Theory and Algebra ★Ring theory and algebra. III. **81h:16001**
 Ring Theory ★Ring theory, Antwerp 1980. **81i:16002**
 Norman, Okla. ★Ring theory and algebra. III. **81h:16001**
 Okayama ★Proceedings of the 13th Symposium on Ring Theory. **81m:16004**
 Paris ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] **81i:16001**
 Proceedings:
 Symposium on Ring Theory ★Proceedings of the 12th Symposium on Ring Theory. **81a:16002**
 ★Proceedings of the 13th Symposium on Ring Theory. **81m:16004**
 Ring theory ★Proceedings of the 12th Symposium on Ring Theory. **81a:16002**
 ★Ring theory, Antwerp 1980. **81i:16002**
 ★Proceedings of the 13th Symposium on Ring Theory. **81m:16004**
 Ring theory and algebra ★Ring theory and algebra. III. **81h:16001**
 Sapporo ★Proceedings of the 12th Symposium on Ring Theory. **81a:16002**
 Séminaire:
 Algèbre Paul Dubreil et Marie-Paule Malliavin ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] **81i:16001**
 Symposium:
 Ring Theory ★Proceedings of the 12th Symposium on Ring Theory. **81a:16002**
 ★Proceedings of the 13th Symposium on Ring Theory. **81m:16004**

secondary classifications:

- (Mitropol'skii, Ju. A.) See Representations and quadratic forms, (**81m:16036**)
 Abelian groups ★Symposia Mathematica. Vol. XXIII. (**81a:20005**)
 INDM Conference:
 Abelian Groups and their Relationship to the Theory of Modules ★Symposia Mathematica. Vol. XXIII. (**81a:20005**)
 Module theory ★Symposia Mathematica. Vol. XXIII. (**81a:20005**)
 Quadratic forms ★Представления и квадратичные формы. (Russian) [Representations and quadratic forms] (**81m:16036**)
 Representations and quadratic forms ★Представления и квадратичные формы. (Russian) [Representations and quadratic forms] (**81m:16036**)
 Rome ★Symposia Mathematica. Vol. XXIII. (**81a:20005**)
 Symposia Mathematica ★Symposia Mathematica. Vol. XXIII. (**81a:20005**)

16A02 Integral domains, unique factorization domains (noncommutative)

secondary classifications:

- Goodearl, K. R. Simple Noetherian rings—the Zaleskii-Neroslavskii examples. (**81b:16009**)

16A03 Graded algebras, rings and modules

- Backelin, Jürgen La série de Poincaré-Betti d'une algèbre graduée de type fini à une relation est rationnelle. (English summary) **81f:16002**
 Cauchon, Gérard Commutant des modules de longueur finie sur certaines algèbres filtrées. **81m:16005**
 Năstăsescu, Constantin Décompositions primaires dans les anneaux noethériens à gauche gradués. **81h:16002**
 Shearer, James B. A graded algebra with a nonrational Hilbert series. **81b:16002**
 Ufnarovskii, V. A. Poincaré series of graded algebras. (Russian) **81h:16003**

secondary classifications:

- van Deuren, J.-P. (with van Oystaeyen, F.) Arithmetically graded rings. I. (**81m:13017**)
 Kobayashi, Yujii Filtered monoids, graded monoids and the Hilbert series. (**81g:20115**)
 van Oystaeyen, F. Graded prime ideals and the left Ore condition. (**81k:16006**)
 See also van Deuren, J.-P., (**81m:13017**)

16A04 Noncommutative principal ideal rings, rings with a division algorithm

16A05 Skew polynomial rings, power series rings

- Archer, J. (with Hart, R.) Linear groups and projective modules over skew polynomial rings. **81m:16006**
 Doneddu, Alfred Anneaux polynômes à deux variables. (English summary) **81c:16001**
 Ferrero, Miguel (with Kishimoto, Kazuo) On automorphisms of skew polynomial rings of derivation type. **81h:16003**
 Gérard, Jacob Un théorème de factorisation des produits d'endomorphismes de K^n . (English summary) **81h:16004**
 Hart, R. See Archer, J., **81m:16006**
 Hauger, Günther Injektive Moduln über Ringen linearer Differentialoperatoren. (English summary) **81h:16003**
 Ikeda, Shūichi Separable polynomial and Frobenius polynomial. **81h:16005**
 A note on separable polynomials in skew polynomial rings of derivation type. **81h:16006**
 Kautschitsch, Hermann Kompositionsideale in Ringen formaler Potenzreihen. **81j:16003**
 Kishimoto, Kazuo See Ferrero, Miguel, **81h:16003**
 Lorenz, Martin (with Michler, Gerhard O.) On maximal ideals in Ore extensions. **81d:16002**
 Michler, Gerhard O. See Lorenz, Martin, **81d:16002**
 Nagahara, Takasi On separable polynomials of degree 2 in skew polynomial rings. II. **81b:16004**
 On separable polynomials of degree 2 in skew polynomial rings. III. **81b:16003**
 Pearson, K. R. See Rimmer, M., **81m:16007**
 Rimmer, M. (with Pearson, K. R.) Nilpotents and units in skew polynomial rings over commutative rings. **81m:16007**
 Wexler-Kreindler, Elena Polynômes de Ore, séries formelles tordues et anneaux filtrés complets héréditaires. (English summary) **81m:16008**

secondary classifications:

- Cauchon, Gérard Anneaux de polynômes essentiellement bornés. (**81c:16033**)
 Chabert, Jean-Luc Anneaux de Skolem. (**81k:13005**)
 van Deuren, J.-P. Les centralisateurs dans les anneaux de polynômes gauches sur un anneau commutatif et dans leurs corps de fractions. (**81c:17012**)
 Farkas, Daniel R. Baire category and Laurent extensions. (**81a:16009**)
 Hart, R. Invertible 2×2 matrices over skew polynomial rings. (**81h:16030**)
 Kerner, Otto Ringe mit verallgemeinerter Kupischreihe. II. (**81g:16027**)
 Levasseur, Thierry Propriétés de certains idéaux premiers d'une algèbre enveloppante. (English summary) (**81c:16028**)
 Menal, Pere Remarks on the GL_2 of a ring. (**81g:20088**)

16A06 Free algebras, free ideal rings (firs) and their generalizations [See also tensor algebra in 15A72.]

- Beauregard, Raymond A. Left versus right LCM domains. **81g:16001**
 Cohn, P. M. On semifir constructions. **81m:16009**
 Florja, R. S. See Rjabuhin, Ju. M., **81f:16004**
 Malcev, Ju. N. Varieties of associative algebras whose submanifold lattice is nondistributive. (Russian) **81f:16003**
 Markov, V. T. Systems of generating 7-ideals of finitely generated free algebras. (Russian) **81k:16004**
 Rjabuhin, Ju. M. (with Florja, R. S.) Radicals and classification of varieties. I. (Russian) **81f:16004**
 Snecerson, L. M. Conditions under which finitely presented algebras are free. (Russian) **81g:16002**

secondary classifications:

- Backelin, Jürgen La série de Poincaré-Betti d'une algèbre graduée de type fini à une relation est rationnelle. (English summary) (**81f:16002**)
 Jagšev, A. V. On the algorithmic problem of recognizing automorphisms among

- endomorphisms of free associative algebras of finite rank. (Russian) (81d:08006)
 Roman'kov, V. A. Unsolvability of the problem of endomorphic reducibility in free nilpotent groups and in free rings. (Russian) (81h:20027)

16A08 Rings of quotients, noncommutative localization

- Beauchy, John A. On inersive localization. 81a:16003
 On localization at an ideal. 81e:16001
 Cohn, P. M. The affine scheme of a general ring. 81e:16002
 Crowe, Gary D. (with Hutchinson, John J.) On the exactness of the completion functor. 81f:16005
 Goldie, Alfred (with Krause, Günter) Artinian quotient rings of ideal invariant Noetherian rings. 81h:16007
 Hutchinson, John J. The completion of a Morita context. 81j:16004
 See also Crowe, Gary D., 81f:16005
 Izawa, Tatsuo. Remarks on quotient rings. 81g:16003
 Krause, Günter. See Goldie, Alfred, 81h:16007
 Londen, Kenneth. Stable torsion and the spectrum of an FBN ring. 81j:16005
 Malcolmson, Peter. Determining homomorphisms to skew fields. 81k:16005
 Marubayashi, Hidetoshi (with Nishida, Kenji) Overrings of Krull orders. 81f:16006
 Müller, Bruno J. Two-sided localization in Noetherian PI-rings. 81h:16008a
 Two-sided localization in Noetherian PI-rings. 81h:16008b
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 Birational extensions of rings. 81b:16005
 Graded prime ideals and the left Ore condition. 81k:16006
 Papp, Zoltán. Spectrum, topologies and sheaves for left Noetherian rings. 81a:16004
 On the spectra of left stable rings. 81c:16002
 Sato, Hideo. Remark on localizations of Noetherian rings with Krull dimension one. 81f:16007
 Szeto, George. The localization of zero-dimensional rings. 81d:16004
 On Goldie theorems for quotient rings. 81b:16006
 Upham, Mary H. Two remarks on duality. 81e:16003
 Verschoren, A. Localization of bimodules and p.i. rings. 81f:16008
 Torsion free extensions and perfect localizations. 81f:16009
 Yammine, Sleiman. Les théorèmes de Cohen-Seidenberg en algèbre non commutative. 81i:16004

secondary classifications:

- Block, Richard E. The irreducible representations of the Weyl algebra A_1 . (81e:17010)
 Čerednik, I. V. Some S -matrices connected with abelian varieties. (Russian) (81d:14013)
 Chamrie, Marc. Idéaux réflexifs dans les algèbres enveloppantes. (English summary) (81e:17011)
 Chatters, A. W. (with Goldie, Alfred; Hajarnavis, C. R.; Lenagan, T. H.) Reduced rank in Noetherian rings. (81f:16041)
 Cohen, Miriam (with Montgomery, Susan) The normal closure of a semiprime ring. (81k:16008)
 Golan, Jonathan S. Colocalization at idempotent ideals. (81i:16038)
 ★Structure sheaves over a noncommutative ring. (81k:16002)
 Structure sheaves of noncommutative rings. (81j:16032)
 Goldie, Alfred. See Chatters, A. W.; et al., (81f:16041)
 Hajarnavis, C. R. See Chatters, A. W.; et al., (81f:16041)
 Lenagan, T. H. See Chatters, A. W.; et al., (81f:16041)
 Levasseur, Thierry. Sur le spectre premier d'une algèbre enveloppante d'une algèbre de Lie nilpotente. (English summary) (81m:17014)
 Miller, Robert W. (with Teply, Mark L.) The descending chain condition relative to a torsion theory. (81b:16019)
 Montgomery, Susan. See Cohen, Miriam, (81k:16008)
 O'Meara, K. C. Quotient rings of symmetric and universal group algebras. (81d:20008)
 van Oystaeyen, F. On the AR-property. (81b:16020)
 Puystjens, R. (with de Smet, H.) The Moore-Penrose inverse for matrices over skew polynomial rings. (81m:15005)
 Shapiro, Jay. Quotient rings of a ring and a subring which have a common right ideal. (81j:16034)
 de Smet, H. See Puystjens, R., (81m:15005)
 Teply, Mark L. See Miller, Robert W., (81b:16019)

16A10 Noncommutative local rings

- Allen, Paul J. See Neggers, Joseph, 81k:16007
 Neggers, Joseph (with Allen, Paul J.) Central perfect rings. 81k:16007

16A12 Prime and semiprime rings

- Cohen, Miriam (with Montgomery, Susan) The normal closure of a semiprime ring. 81k:16008
 Fisher, Joe W. Semiprime crossed products. 81b:16007
 Herstein, I. N. (with Small, Lance W.) Some comments on prime rings. 81e:16003
 Heyman, G. A. P. (with le Roux, H. J.) On upper and complementary radicals. 81f:16006
 Kovacs, Amos. On derivations in prime rings and a question of Herstein. 81i:16005
 Kutami, Mamoru. Strongly semiprime rings and nonsingular quasi-injective modules. 81f:16010
 (with Oshiro, Kiyochi) Strongly semiprime rings and nonsingular quasi-injective modules. 81f:16011
 Lorenz, Martin (with Passman, Donald S.) Two applications of Maschke's theorem. 81k:16009
 Montgomery, Susan. See Cohen, Miriam, 81k:16008
 Nicholson, W. K. (with Watters, J. F.) The strongly prime radical. 81i:16006

- Oshiro, Kiyochi. See Kutami, Mamoru, 81f:16011
 Park, Young L. A note on nil-semisimple ring. 81f:16012
 Passman, Donald S. See Lorenz, Martin, 81k:16009
 le Roux, H. J. See Heyman, G. A. P., 81f:16006
 Shapiro, Jay. R -sequences in fully bounded Noetherian rings. 81c:16004
 Small, Lance W. See Herstein, I. N., 81e:16003
 Watters, J. F. Semiprime rings with divisible elements. 81f:16013
 See also Nicholson, W. K., 81i:16006

secondary classifications:

- (Bessenrodt, Christine) See Robson, J. C., (81a:16018)
 Bican, Ladislav (with Jambor, P.; Kepka, Tomáš; Némec, Petr) Prime and coprime modules. (81k:16026)
 Gupta, Vishnu. A commutativity theorem for semiprime rings. (81j:16039)
 Jambor, P. See Bican, Ladislav; et al., (81k:16026)
 Kepka, Tomáš. See Bican, Ladislav; et al., (81k:16026)
 Lorenz, Martin (with Passman, Donald S.) Observations on crossed products and final rings. (81c:16013)
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 Vidal, Robert Dérivations d'un corps local à corps résiduel de caractéristique nulle et algébriquement clos. (81m:16037)

secondary classifications:

- Berg, Lothar Distribution algebras with reflexive inverses. (81h:46042)
 Chung, Lung O. (with Luh, Jiang; Richoux, Anthony N.) Derivations and commutativity of rings. II. (81h:16052)
 Delange, Richard See Govaerts, W.; et al., (81b:08004)
 Ferrero, Miguel (with Kishimoto, Kazuo) On automorphisms of skew polynomial rings of derivation type. (81h:16003)
 Govaerts, W. (with Delange, Richard; Impens, C.) Representation of ring morphisms on product rings. (81b:08004)
 Gupta, Surender K. On the Jacobson-Cartier operator. (81e:13001)
 Ikeshita, Shōichi A note on separable polynomials in skew polynomial rings of derivation type. (81h:16006)
 Impens, C. See Govaerts, W.; et al., (81b:08004)
 Jordan, D. A. The Lie ring of symmetric derivations of a ring with involution. (81d:16025)
 Kishimoto, Kazuo See Ferrero, Miguel, (81h:16003)

- Kovacs, Amos On derivations in prime rings and a question of Herstein. (81i:16005)
 Lichnerowicz, André Dérivations et automorphismes pour des algèbres formelles associées par déformation à une variété symplectique. (English summary) (81e:58020)
 Lorenz, Martin (with Passman, Donald S.) Two applications of Maschke's theorem. (81k:16009)
 Luh, Jiang See Chung, Lung O.; et al., (81h:16052)
 Montgomery, Susan ★ Fixed rings of finite automorphism groups of associative rings. (81j:16041)
 Passman, Donald S. See Lorenz, Martin, (81k:16009)
 Richoux, Anthony N. See Chung, Lung O.; et al., (81h:16052)

16A74 Galois theory

- Cohn, P. M. The normal basis theorem for skew field extensions. (81b:16061)
 Montgomery, Susan ★ Fixed rings of finite automorphism groups of associative rings. (81j:16041)

secondary classifications:

- Dosta, S. I. Galois extensions of linear topological rings. (Russian. English summary) (81e:16035)
 Fisher, Joe W. (with Osterburg, James) Finite group actions on noncommutative rings: a survey since 1970. (81i:16001)
 Montgomery, Susan Automorphism groups of rings with no nilpotent elements. (81j:16040)
 Nagahara, Takasi On separable polynomials of degree 2 in skew polynomial rings. II. (81b:16004)
 Osterburg, James See Fisher, Joe W., (81i:16001)
 Page, Annie Actions de groupes. (81e:16031)
 Szeto, George A characterization of a cyclic Galois extension of commutative rings. (81b:13003)

16A76 Near-rings [See also 12K05.]

- Bhandari, M. C. See Saxena, P. K., (81b:16028)
 Clay, James R. The fibred product near-rings and near-ring modules for certain categories. (81i:16044)
 De Stefano, Stefania (with Di Sieno, Simonetta) The Jacobson radical of a distributive near-ring. I. (Italian. English summary) (81j:16042a)
 (with Di Sieno, Simonetta) The Jacobson radical of a distributive near-ring. II. (Italian. English summary) (81j:16042b)
 Di Sieno, Simonetta See De Stefano, Stefania, (81j:16042a) and De Stefano, Stefania, (81j:16042b)
 Feiglstock, Shalom (with Klein, Aaron) A functorial approach to near-rings. (81b:16045)
 Fong, Yuan (with Meldrum, J. D. P.) The endomorphism near-rings of the symmetric groups of degree at least five. (81j:16043)
 Hofer, Robert D. Near-rings of continuous functions on disconnected groups. (81b:16026)
 Holcombe, M. Holonomy decompositions of near-rings. (81m:16038)
 John, David J. Residual finiteness and "free" distributively generated near-rings. (81b:16027)
 Jones, Patricia (with Ligh, Steve) Finite hereditary near-ring-semigroups. (81k:16035)
 Karzel, Helmut (with Kist, Günter) Some applications of near-fields. (81k:16036)
 Kist, Günter See Karzel, Helmut, (81k:16036)
 Klein, Aaron See Feiglstock, Shalom, (81b:16045)
 Ligh, Steve See Jones, Patricia, (81k:16035)
 Lyons, C. G. (with Meldrum, J. D. P.) Reduction theorems for endomorphism near-rings. (81j:16044)
 See also Meldrum, J. D. P., (81e:16049)
 Magill, Kenneth D., Jr. Automorphism groups of laminated near-rings. (81i:16046)
 Mahmood, Suralya J. Limits and colimits in categories of d.g. near-rings. (81j:16045)
 Mason, Gordon Strongly regular near-rings. (81j:16047)
 Maxson, Carlton J. (with Smith, Kirby C.) Simple near-ring centralizers of finite rings. (81e:16047)
 (with Smith, Kirby C.) The centralizer of a set of group automorphisms. (81e:16048)
 Meldrum, J. D. P. (with Lyons, C. G.) Characterizing series for faithful d.g. near-rings. (81e:16049)
 On the structure of morphism near-rings. (81e:16050)
 (with Oswald, A.) Near-rings of mappings. (81g:16042)
 Presentations of faithful d.g. near-rings. (81i:16048)
 See also Fong, Yuan, (81j:16043) and Lyons, C. G., (81j:16044)
 Müller, Winfried B. Über die Kettenregel in Fasttringen. (81e:16051)
 Oswald, A. Near-rings with chain conditions on right annihilators. (81i:16049)
 See also Meldrum, J. D. P., (81g:16042)
 Pilz, Günter Near-rings: theory and applications. (Italian. English summary) (81i:16028)
 (with So, Yong Sian) Near-rings of polynomials and polynomial functions. (81d:16029)
 Prehn, Renate Injektive Gruppen über Fasttringen. (81e:16052)
 Ramakotah, D. (with Rao, G. Koteswara) IFP near-rings. (81e:16053)
 Rao, G. Koteswara See Ramakotah, D., (81e:16053)
 Saxena, P. K. (with Bhandari, M. C.) Lower and upper formation radical of near-rings. (81b:16028)
 Scott, S. D. Involution near-rings. (81b:16029)
 The automorphism group of a near-ring. (81j:16046)
 Finitely generated right ideals of transformation near-rings. (81k:16037)
 Smith, Kirby C. See Maxson, Carlton J., (81e:16047) and Maxson, Carlton J., (81e:16048)
 So, Yong Sian See Pilz, Günter, (81d:16029)
 Ștefănescu, Mirela A generalization of the concept of near-ring: infra-near-rings. (81e:16032)
 Zeamer, R. Warwick On the near-ring generated by the endomorphisms of a free group. (81m:16039)

secondary classifications:

- Chen, Yi On characterizing near-fields. (81h:12021)
 Kulužnin, L. A. (with Sušćans'kii, V. I.) Verbal functions on groups. (Russian) (81m:20046)
 Malone, J. J. A nonabelian 2-group whose endomorphisms generate a ring, and other examples of E -groups. (81m:20057)
 Ratliff, Ernest An algebraic system pertaining to a loop. (81k:20103)
 Ştefănescu, Mirela Semisimple infranear rings. (81i:16051)
 Sušćans'kii, V. I. See Kulužnin, L. A., (81m:20046)

16A78 Semirings and other generalizations of rings

- Dale, Louis The structure of ideals in the semiring of $n \times n$ matrices over a Euclidean semiring. 81e:16033
 Ideal types in a polynomial half-ring. 81e:16054
 Kyuno, Shoji Nobusawa's gamma rings with the right and left unities. 81h:16062
 Polla, S. V. Minimal varieties of semirings. (Russian) 81i:16050
 Ştefănescu, Mirela Semisimple infranear rings. 81i:16051
 Weinert, H. J. A concept of characteristic for semigroups and semirings. 81e:16034
 Multiplicative cancellativity of semirings and semigroups. 81k:16038
 Żeleznikow, John Orthodox semirings and rings. 81m:16040

secondary classifications:

- Celakoski, Naum On (F, G) -rings. (Macedonian summary) (81e:17006)
 Pačkorija, A. M. Normal Schreier extensions of semimodules. (Russian. English summary) (81f:18033)

16A80 Topological rings and modules [See also 13Jxx.]

- Arnaudov, V. I. Compact rings with a finite number of topological generators. (Russian) 81i:16052
 (with Ursul, M. I.) Uniqueness of a linearly compact topology in rings. (Russian) 81i:16053
 Cîr Dănuţ Hoi The relation between the radicals of topological rings and the radicals of rings without topology. (Russian) 81k:16039
 Dinh Van Huynh On the maximal regular ideal of a linearly compact ring. 81e:16055
 Dosta, S. I. Galois extensions of linear topological rings. (Russian. English summary) 81e:16035
 Haley, David K. ★Equational compactness in rings. 81e:16036
 Kalistru, R. K. Completeness of a free topological module generated by a discrete space. (Russian) 81g:16043
 Kjusin, A. V. The connected component of a locally compact open Artinian ring. (Russian) 81e:16056
 Openly Noetherian rings. (Russian. English summary) 81i:16054
 Ljpkina, Z. S. Letter to the editors: "Structure of compact rings" [Sibirsk. Mat. Ž. 14 (1973), 1346-1348; MR 48 #8576]. (Russian) 81d:16030
 Lorenzini, Anna Compact and linearly topologized modules, and duality. (Italian. English summary) 81h:16063
 Lu, Chin Pi Quasicomplete modules. 81f:16054
 Phạm Ngọc Anh Über die Struktur linear kompakter Ringe. II. 81h:16064
 On the theory of linearly compact rings. I. 81f:16055
 Prodanov, Ivan Precompact minimal topologies on some torsion free modules. (Bulgarian summary) 81f:16056
 Tewari, K. (with Verma, S.) Compact rings and natural topology. 81k:16040
 Ursul, M. I. The relations between the concepts of compactness, linear compactness and hereditarily linear compactness in topological rings. (Russian) 81g:16044
 The product of hereditarily linear-compact rings. (Russian) 81h:16065
 See also Arnaudov, V. I., 81i:16053
 Verma, S. See Tewari, K., 81k:16040
 Vodinčar, M. I. Algebraic radicals and radical-semisimple classes of topological modules. (Russian) 81g:16045
 Warner, Seth A new approach to Gel'fand-Mazur theory and the extension theorem. 81b:16030
 Witkowski, Lech On coalgebras and linearly topological rings. 81e:16057

secondary classifications:

- Hannák, L. Linearly compact algebras. (81i:08005)

16A86 Ordered rings [See also 06F25.]

16A89 Equivalence of module categories

- Bongartz, Klaus (with Riedtmann, Christine) Algèbres stablement héréditaires. (English summary) 81i:16055
 Riedtmann, Christine See Bongartz, Klaus, 81i:16055
 Sato, Masahisa On equivalences between module categories. 81e:16058

secondary classifications:

- Bazzoni, Silvana Pontryagin type dualities over commutative rings. (81e:13008a)
 Hutchinson, John J. The completion of a Morita context. (81j:16004)
 Reiten, Idun Algebras stably equivalent to Nakayama algebras of Loewy length at most 4. (81g:16029)

16A90 Categorical methods and categorical ring theory

- Albu, Toma On commutative Grothendieck categories having a Noetherian cogenerator. 81k:16041

- Émin, G. G. Finite-basable varieties and localizations in the category of modules over all rings. (Russian. Armenian summary) 81f:16057
 Kato, Toyonori (with Ohtake, Koichiro) Morita contexts and equivalences. 81f:16058
 Ohtake, Koichiro See Kato, Toyonori, 81f:16058

secondary classifications:

- Arnold, David M. (with Hunter, Roger H.; Richman, F.) Global Azumaya theorems in additive categories. (81j:18014)
 Burgess, W. D. On free commutative regular rings. (81d:16010)
 Émin, G. G. Prevarieties, groupoid of varieties, and strict radicals in the category of modules over all rings. (Russian. Armenian and English summaries) (81h:08011)
 Hullinger, Hartan L. Stable equivalence and rings whose modules are a direct sum of finitely generated modules. (81b:16013)
 Hunter, Roger H. See Arnold, David M.; et al., (81j:18014)
 Jensen, Christian U. (with Simson, Daniel) Purity and generalized chain conditions. (81j:18016)
 Mitchell, Barry Some applications of module theory to functor categories. (81i:18010)
 Richman, F. See Arnold, David M.; et al., (81j:18014)
 Simson, Daniel See Jensen, Christian U., (81j:18016)
 Upham, Mary H. Two remarks on duality. (81e:16003)

16A99 Miscellaneous topics

secondary classifications:

- Feigelstock, Shalom A simple proof of a theorem of Stratton. (81m:20069)
 Halgh, John On the Möbius algebra and the Grothendieck ring of a finite category. (81i:18005)
 Vidal, Robert Dérivations d'un corps local à corps résiduel de caractéristique nulle et algébriquement clos. (81m:16037)

17-XX NONASSOCIATIVE RINGS AND ALGEBRAS

17-01 Elementary exposition, textbooks

17-02 Advanced exposition (research surveys, monographs, etc.)

secondary classifications:

- Bokut', L. A. Decision problems for ring theory. (81k:16001)
 Niederre, J. The unusual algebras and their applications in particle physics. (81i:17003)

17-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- Hawkins, Thomas Non-Euclidean geometry and Weierstrassian mathematics: the background to Killing's work on Lie algebras. (French and German summaries) (81j:01019)

17-04 Explicit machine computation and programs (not the theory of computation or programming)

- Sitharama Iyengar, S. See Wong, K. C., 81f:17001
 Wong, K. C. (with Sitharama Iyengar, S.) A classical algorithm for product computations on a computer. 81c:17001

17-06 Proceedings, conferences, etc.

secondary classifications:

- (Dubreil, Paul) See Séminaire: Algèbre Paul Dubreil et Marie-Paule Malliavin, (81f:16001)
 (Malliavin-Brameret, Marie-Paule) See Séminaire: Algèbre Paul Dubreil et Marie-Paule Malliavin, (81f:16001)
 (Myung, Hyo Chul) See Applications of Lie-admissible algebras in physics, (81i:81040)
 (Okubo, Susumu) See Applications of Lie-admissible algebras in physics, (81i:81040)
 (Santilli, Ruggero Maria) See Applications of Lie-admissible algebras in physics, (81i:81040)
 Algebra ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] (81f:16001)
 Applications of Lie-admissible algebras in physics ★Applications of Lie-admissible algebras in physics. Vol. I, II. (81i:81040)
 Cambridge, Mass. ★Proceedings of the Second Workshop on Lie-Admissible Formulations. Part A. (81a:81005a)
 ★Proceedings of the Second Workshop on Lie-Admissible Formulations. Part B. (81a:81005b)
 Lie-admissible formulations ★Proceedings of the Second Workshop on Lie-Admissible Formulations. Part A. (81a:81005a)
 ★Proceedings of the Second Workshop on Lie-Admissible Formulations. Part B. (81a:81005b)
 Paris ★Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil et Marie-Paule Malliavin] (81f:16001)
 Proceedings:
 Workshop on Lie-Admissible Formulations ★Proceedings of the Second Workshop on Lie-Admissible Formulations. Part A. (81a:81005a)
 ★Proceedings of the Second Workshop on Lie-Admissible Formulations. Part B. (81a:81005b)

Séminaire:

Algèbre Paul Dubreil et Marie-Paule Malliavin ★ Séminaire d'Algèbre Paul Dubreil et Marie-Paule Malliavin. (French) [Algebra Seminar Paul Dubreil and Marie-Paule Malliavin] (81f:16001)

Workshop:

Lie-Admissible Formulations ★ Proceedings of the Second Workshop on Lie-Admissible Formulations. Part A. (81a:81005a)

★ Proceedings of the Second Workshop on Lie-Admissible Formulations. Part B. (81a:81005b)

17Axx General nonassociative rings

17A01 General theory

Benkart, Georgia Derivations and automorphisms of matrices symmetric relative to a canonical involution. 81j:17001

Wene, Gregory P. A generalization of bonded algebras. 81d:17001

17A05 Power-associative

Kilanski, Srinivasacharyulu Nonassociative regular Banach algebras. 81h:17001

17A10 Commutative power-associative

17A15 Noncommutative Jordan algebras

Kazim, M. A. See Khan, Mohd. Rais. 81h:17002

Khan, Mohd. Rais On quasicommutative Jordan algebras. 81a:17001

(with Kazim, M. A.) On quasicommutative Jordan algebras. 81h:17002

Myung, Hyo Chul (with Santilli, Ruggero Maria) Further studies on the recently proposed experimental test of Pauli's exclusion principle for the strong interactions. 81h:17001

Santilli, Ruggero Maria See Myung, Hyo Chul. 81h:17001

Sht'ko, A. M. Special varieties of Jordan algebras. (Russian) 81c:17002

17A20 Flexible algebras

Myung, Hyo Chul Flexible Lie-admissible algebras with nil-basis. 81h:17002

secondary classifications:

Hentzel, Irvin Roy (with Hogben, Leslie; Smith, Harry F.) Flexible derivation alternator rings. (81m:17001)

Hogben, Leslie See Hentzel, Irvin Roy; et al., (81m:17001)

Myung, Hyo Chul Embedding of a Lie algebra into Lie-admissible algebras. (81f:17001)

Oehmke, Robert H. Some elementary structure theorems for a class of Lie-admissible algebras. (81h:17025)

Smith, Harry F. See Hentzel, Irvin Roy; et al., (81m:17001)

17A25 Nodal algebras

secondary classifications:

Jackett, D. R. The nil-degree of a torsion-free abelian group. (81h:20067)

Kaplansky, Irving Superalgebras. (81j:17006)

17A30 Algebras satisfying other identities

Allison, B. N. A class of nonassociative algebras with involution containing the class of Jordan algebras. 81h:17003

Conlon, Mary Ellen A generalization of degree two simple finite-dimensional noncommutative Jordan algebras. 81g:17001

Gardner, B. J. Radicals related to the Brown-McCoy radical in some varieties of algebras. 81g:17002

Gončigdorž, R. Irreducible subdirect products of rings without zero divisors. (Russian) 81c:17003

Helmstetter, Jacques Radical d'une algèbre symétrique à gauche. (English summary) 81j:17002

Hentzel, Irvin Roy (with Hogben, Leslie; Smith, Harry F.) Flexible derivation alternator rings. 81m:17001

Hogben, Leslie See Hentzel, Irvin Roy; et al., 81m:17001

Koecher, Max On commutative nonassociative algebras. 81c:17004

Marković, A. S. Lower nil-radical of rings of type (γ, δ) . (Russian) 81b:17003

Nilpotency of the associator ideal of a (γ, δ) -ring. (Russian) 81j:17003

Milneev, I. M. Prime right alternative rings with idempotent. (Russian) 81c:17005

Myung, Hyo Chul Embedding of a Lie algebra into Lie-admissible algebras. 81f:17001

Okubo, Susumu Octonion, pseudo-alternative, and Lie-admissible algebras. 81a:17002

Pokras, David Levitzki radical for certain varieties. 81b:17004

Santilli, Ruggero Maria Initiation of the representation theory of Lie-admissible algebras of operators on bimodular Hilbert spaces. 81h:17004

Smith, Harry F. Finitely generated solvable generalized $(-1, 1)$ algebras. 81m:17002

See also Hentzel, Irvin Roy; et al., 81m:17001

secondary classifications:

Artamonov, V. A. Lattices of varieties of linear algebras. (Russian) (81g:08012a)

Letter to the editors: "Lattices of varieties of linear algebras". (Russian)

(81g:08012b)

Fronteau, Jean (with Tellez-Arenas, A.; Santilli, Ruggero Maria) Lie-admissible structure of statistical mechanics. (81c:82005)

Ilamed, Yehiel On realizations of infinite-dimensional Lie-admissible algebras.

(81d:17012)

Kleinfeld, Erwin (with Kleinfeld, Margaret Humm) Rings of type (γ, δ) without zero divisors are associative. (81f:17015)

Kleinfeld, Margaret Humm See Kleinfeld, Erwin. (81f:17015)

Ko, Young So (with Myung, Hyo Chul) On Lie-admissible algebras associated with invariant bilinear forms. (81h:17024)

Kobussen, J. A. Lie-admissible structure of classical field theory. (81c:70020)

Myung, Hyo Chul Flexible Lie-admissible algebras with nil-basis. (81b:17002)

See also Ko, Young So. (81h:17024)

Ng, Seong Nam Right nucleus in right alternative algebras. (81m:17025)

Santilli, Ruggero Maria Status of the mathematical and physical studies on the Lie-admissible formulations on July 1979, with particular reference to the strong interactions. (81d:17014a)

See also Fronteau, Jean; et al., (81c:82005)

Tellez-Arenas, A. See Fronteau, Jean; et al., (81c:82005)

17A35 Division algebras

secondary classifications:

Buchanán, Thomas Zur Topologie der projektiven Ebenen über reellen Divisionsalgebren. (81m:51023)

Chung, Lung O. (with Luh, Jiang; Richoux, Anthony N.) Derivations and commutativity of rings. II. (81h:16052)

Luh, Jiang See Chung, Lung O.; et al., (81h:16052)

Richoux, Anthony N. See Chung, Lung O.; et al., (81h:16052)

Seligman, George B. Mappings into symmetric powers. (81c:16033)

17A36 Automorphisms, derivatives, other operators

17A40 Ternary compositions

Arthanari, M. von Neumann regularity in associative triple systems. 81g:17003

Taniguchi, Yoshiaki On a kind of pairs of Lie triple systems. 81d:17002

secondary classifications:

Bars, Itzhak (with Günaydin, Murat) Dynamical theory of subconstituents based on ternary algebras. (81h:81151)

Caggegi, Andrea Simple Hestenes ternary rings, right Artinian and with no effective two-sided ideals. (Italian. English summary) (81m:16023)

Günaydin, Murat See Bars, Itzhak. (81h:81151)

Gurevič, G. B. Canonical trivectors to which a basic rule is applicable. (Russian) (81d:15009)

Comparison of two rules for establishing a characteristic of trivectors. (Russian) (81d:15010)

Hogben, Leslie Radicals and semiprime ideals of Jordan triple systems. (81a:17011)

Kim, Ki Hang (with Roush, Fred W.) Ternary semigroups associative on each pair of factors. (81i:20105)

Roush, Fred W. See Kim, Ki Hang. (81i:20105)

Spera, Antonio Giorgio Hestenes ternary rings. (Italian. English summary) (81m:16024)

17A42 Other n -ary compositions

Celakoski, Naum On (F, G) -rings. (Macedonian summary) 81c:17006

17A45 Quadratic algebras (not quadratic Jordan algebras)

17A50 Free algebras

17A60 Structure theory in general nonassociative rings

secondary classifications:

Gardner, B. J. Some degeneracy and pathology in nonassociative radical theory. (81j:17005)

17A65 Radical theory in general nonassociative rings

Anderson, Tim (with Wiegandt, R.) Weakly homomorphically closed semisimple classes. 81c:17007

Gardner, B. J. Some degeneracy and pathology in nonassociative radical theory. 81j:17005

The lower radical construction for nonassociative rings: examples and counterexamples. 81c:17008

Radical properties defined locally by polynomial identities. I, II. 81j:17004

Nikitin, A. A. Lower radicals of some classes of rings. (Russian) 81c:17009

Heredity of radicals of rings. (Russian) 81c:17001

Wiegandt, R. See Anderson, Tim. 81c:17007

secondary classifications:

Jenkins, T. L. See Olson, D. M., (81f:16015)

Olson, D. M. (with Jenkins, T. L.) A note on upper radicals generated by simple rings. (81f:16015)

17A70 Super algebras

Backhouse, Nigel The representation of Lie superalgebras. 81b:17005

Computing the invariants of Lie superalgebras. 81b:17006

Han, Qi Zhi See Song, Xing Chang; et al., 81j:17008

Hlavaty, L. (with Niederle, J.) Casimir operators of the simplest supersymmetry superalgebras. 81m:17003

Kaplansky, Irving Superalgebras. 81j:17006

Ljabovskii, V. D. Stability of semisimple superalgebras. (Russian. English summary) 81e:17002

Marcu, M. The tensor product of two irreducible representations of the $\mathfrak{spl}(2, 1)$ superalgebra. 81j:17007

The representations of $\mathfrak{spl}(2, 1)$ —an example of representations of basic superalgebras. 81m:17004

Niederle, J. See Hlavaty, L., 81m:17003

Palev, Čavdar Fock space representations of the Lie superalgebra $A(0, n)$. 81h:17005

Song, Xing Chang (with Han, Qi Zhi; Sun, Hong Zhou) Irreducible representations of the graded Lie algebra $SU(2/1)$. 81j:17008

Sun, Hong Zhou See Song, Xing Chang; et al., 81j:17008

Trlifaj, L. Exceptional and orthosymplectic graded Lie algebras. 81e:17003

secondary classifications:

Bednář, Miroslav (with Šachl, Vladimír) Fourth degree Casimir operator of the semisimple graded Lie algebra $(\mathfrak{Sp}(2N); 2N)$. (81e:17006)

Ganchev, A. Č. (with Palev, Čavdar) A Lie superalgebraic interpretation of the para-Bose statistics. (81d:81036)

Green, H. S. See Jarvis, P. D., (81j:17005)

Jarvis, P. D. (with Green, H. S.) Casimir invariants and characteristic identities for generators of the general linear, special linear and orthosymplectic graded Lie algebras. (81j:17005)

Ne'eman, Yuval (with Sternberg, Shlomo) Internal supersymmetry and unification. (81k:81098)

Palev, Čavdar See Ganchev, A. Č., (81d:81036)

S-matrix for interacting A -fields. (81k:81044)

Parker, Monique Classification of real simple Lie superalgebras of classical type. (81j:17007)

Šachl, Vladimír See Bednář, Miroslav, (81e:17006)

Širokov, Ju. M. Algebra of one-dimensional generalized functions. (Russian. English summary) (81c:46033)

Algebra of three-dimensional generalized functions. (Russian. English summary) (81c:46034)

Sternberg, Shlomo See Ne'eman, Yuval, (81k:81098)

Taylor, John G. On representations of extended supersymmetry algebras on superfields. (81i:81080)

Valle, J. W. F. Hilbert superspaces and Grassmann numbers. (81e:81053)

Zakharov, R. P. Superconformal invariant two- and three-point functions, and invariant equations in a two-dimensional space-time. (Russian. English summary) (81d:81063)

17A75 Composition algebras

17A99 None of the above, but in this section

Hefendehl-Hebeker, Lisa Eine Topologie auf der Menge der endlichdimensionalen nichtassoziativen Algebren über einem lokalen Körper. (English summary) 81m:17005

Krempa, Jan On invariant subspaces of locally finite derivations. 81k:17001

Xu, Yong Hua Nonassociative and nondistributive rings. II. (Chinese. English summary) 81m:17007

Nonassociative and nondistributive rings. III. (Chinese. English summary) 81m:17008

Nonassociative and nondistributive rings. I. 81m:17006

secondary classifications:

Benkart, Georgia Derivations and automorphisms of matrices symmetric relative to a canonical involution. (81j:17001)

Fried, E. Equational bases for some nonassociative generalizations of the class of distributive lattices. (81m:08012)

Giambruno, Antonino Some generalizations of the center of a ring. (Italian summary) (81h:16053)

Hofgate, P. Canonical multiplication in the genetic algebra for linked loci. (81a:92006)

Köv, M. (with Löhmus, J.) Generalized deformations of nonassociative algebras. Definition and some simple examples. (81h:81063)

Leake, Charles R. An extension \mathcal{C}_α of \mathcal{C}_j that has an application in learning theory. (81h:92017)

Löhmus, J. See Köv, M., (81h:81063)

Rose, Bruce I. On the model theory of finite-dimensional algebras. (81a:03033)

Salingaros, Nikos Realization and classification of the universal Clifford algebras as associative Lie-admissible algebras. (81d:16026)

17Bxx Lie algebras (For Lie groups, see 22Exx.)

Humphreys, James E. ★ Introduction to Lie algebras and representation theory. 81b:17007

17B05 Structure theory

Benediktović, I. I. (with Zaleskii, A. E.) T -ideals of free Lie algebras with polynomial growth of a sequence of codimensions. (Russian. English summary) 81k:17002

Carles, Roger Variétés des algèbres de Lie de dimension inférieure ou égale à 7. (English summary) 81c:17010

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Moody, Robert V. Isomorphisms of upper Cartan-matrix Lie algebras. 81j:17009

Ooms, Alfons I. On Frobenius Lie algebras. 81c:17011

Rhinow, Gerd Über Automorphismenbahnen von Elementen $u \neq 0$ mit $(\text{ad } u)^3 = \alpha \text{ ad } u$ in endlichdimensionalen einfachen komplexen Lie-Algebren. (English summary) 81c:17012

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Zaleskii, A. E. See Benediktović, I. I., 81k:17002

secondary classifications:

Sancho de San Román, Juan Formations of associative or Lie algebras. (81h:17014)

Stewart, Ian The minimal condition for subideals of Lie algebras implies that every ascendant subalgebra is a subideal. (81j:17013)

Togo, Shigeaki Weakly ascendant subalgebras of Lie algebras. (81h:17011)

17B10 Representations, algebraic theory (weights)

Agrawal, Vishnu K. Micu-type invariants of exceptional simple Lie algebras. 81h:17008

Aserova, R. M. (with Smirnov, Ju. F.; Tolstol, V. N.) Description of a certain class of projection operators for complex semisimple Lie algebras. (Russian) 81h:17009

Bednář, Miroslav (with Šachl, Vladimír) Fourth degree Casimir operator of the semisimple graded Lie algebra $(\mathfrak{Sp}(2N); 2N)$. 81e:17006

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(with Wallach, Nolan R.) Notes on homological algebra and representations of Lie algebras. 81e:17013

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Gelfand, S. I. The Weil representation of a Lie algebra of type G_2 and related representations of SL_2 . (Russian) 81h:17003

Horoshkin, S. M. The category of Harish-Chandra modules of the group $SU(n, 1)$. (Russian) 81h:17010

Jantzen, Jens Carsten ★ Moduln mit einem höchsten Gewicht. (German) [Modules with a highest weight] 81m:17011

Kac, Victor G. (with Kazhdan, David) Structure of representations with highest weight of infinite-dimensional Lie algebras. 81d:17004

Kazhdan, David See Kac, Victor G., 81d:17004

Koreškov, N. A. Irreducible representations of the Lie p -algebra W_2 . (Russian) 81h:17011

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Lemire, F. (with Pap, M.) H -finite irreducible representations of simple Lie algebras. 81c:17014

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Tolstol, V. N. See Aserova, R. M.; et al., 81h:17009

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secondary classifications:

Block, Richard E. The irreducible representations of the Weyl algebra A_1 . (81e:17010)

Brooke, J. A. A Galilean formulation of spin. II. Explicit realizations. (81j:15031)

Cahen, M. (with Parker, Monique) Pseudo-Riemannian symmetric spaces. (81h:53036)

Ernst, Ju. B. The structure of the center of the universal enveloping algebra of the Zassenhaus algebra. (Russian) (81d:17010)

Garland, Howard Erratum: "The arithmetic theory of loop algebras" [J. Algebra 53 (1978), no. 2, 480–551; MR 80a:17012]. (81d:17008)

Iosifescu, Mircea (with Scutaru, Horia) On six-dimensional canonical realizations of the $\mathfrak{so}(4, 2)$ algebra. (81m:81027)

Kahn, E. G. (with Manocha, H. L.; Miller, Willard, Jr.) Transformation and reduction formulas for two-variable hypergeometric functions on the sphere S_2 . (81m:33011)

Lepowsky, James Lie algebras and combinatorics. (81d:10015)

Manocha, H. L. See Kahn, E. G.; et al., (81m:33011)

Mehta, C. L. See Mukunda, N.; et al., (81k:81033)

Miller, Willard, Jr. See Kahn, E. G.; et al., (81m:33011)

Mukunda, N. (with Sudarshan, E. C. G.; Sharma, J. K.; Mehta, C. L.) Representations and properties of para-Bose oscillator operators. I. Energy position and momentum eigenstates. (81k:81033)

Parker, Monique See Cahen, M., (81h:53036)

- Pletnev, N. G. Linear supergravity. (Russian. English summary) (81g:8103)
- Scutaru, Horia. See Iosifescu, Mircea, (81m:81027)
- Sharma, J. K. See Mukunda, N.; et al., (81k:81033)
- Simonjans, L. The correspondence between varieties of linear representations of groups and Lie algebras. (Russian) (81a:20020)
- Springer, T. A. The Steinberg function of a finite Lie algebra. (81g:20090)
- Sudarshan, E. C. G. See Mukunda, N.; et al., (81k:81033)
- Taylor, John G. On representations of extended supersymmetry algebras on superfields. (81i:81080)
- Wallach, Nolan R. The analytic continuation of the discrete series. I, II. (81a:22009)
- Williams, Floyd L. Lie algebra cohomology of infinite-dimensional modules. (81f:17010)

17B15 Representations, analytic theory

- Brylinski, Jean-Luc (with Kashiwara, Masaki) Démonstration de la conjecture de Kazhdan-Lusztig sur les modules de Verma. (English summary) 81k:17004
- Cattaneo, U. (with Wreszinski, W.) Trotter limits of Lie algebra representations and coherent states. 81a:17005
- Kashiwara, Masaki. See Brylinski, Jean-Luc, 81k:17004
- Moody, Robert V. Lie algebra subjoining. 81m:17012
- Rosensteel, G. A recursion formula for $sp(3, \mathbb{R})$ matrix elements. 81f:17005
- Wreszinski, W. See Cattaneo, U., 81a:17005

17B20 Simple, semisimple, reductive algebras (roots)

- Gaenger, Michael A. Integral invariant functions on the nilpotent elements of a semisimple Lie algebra. 81e:17007
- Mal'nev, F. M. Decomposition of root systems. (Russian) 81k:17005
- Patera, J. (with Sharp, R. T.; Slansky, R.) On a new relation between semisimple Lie algebras. 81f:17004
- Sharp, R. T. See Patera, J.; et al., 81f:17004
- Slansky, R. See Patera, J.; et al., 81f:17004

secondary classifications:

- Allison, B. N. A class of nonassociative algebras with involution containing the class of Jordan algebras. (81k:17003)
- Models of isotropic simple Lie algebras. (81d:17005)
- Čekalov, I. V. Riemannian homogeneous spaces generated by automorphisms. (Russian) (81m:53057)
- Engelfield, M. J. (with King, R. C.) Symmetric power sum expansions of the eigenvalues of generalised Casimir operators of semisimple Lie groups. (81g:81030)
- Frenkel, I. B. Spinor representations of affine Lie algebras. (81j:17011)
- King, R. C. See Engelfield, M. J., (81g:81030)
- Lemire, F. (with Pap, M.) H -finite irreducible representations of simple Lie algebras. (81e:17014)
- Louesto, Pertti What kind of parquet should I choose for the four-dimensional floor of my five-dimensional apartment? (Finnish. English summary) (81b:51011)
- Moody, Robert V. Isomorphisms of upper Cartan-matrix Lie algebras. (81j:17009)
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- Stanley, Richard P. Unimodal sequences arising from Lie algebras. (81k:05011)
- Tolpygo, A. K. Cohomology of nilpotent Lie algebras and its generating functions. (Russian) (81d:17007)
- Wilson, Robert Lee Simple Lie algebras of type S . (81c:17019)
- Winter, David J. Cartan decompositions and Engel subalgebra triangulability. (81e:17005)

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- Allison, B. N. Models of isotropic simple Lie algebras. 81d:17005
- Ferrar, J. C. On the classification of Freudenthal triple systems and Lie algebras of type E_7 . 81g:17004
- Hirzebruch, Ulrich A generalization of Tits' construction of Lie algebras by Jordan algebras to Jordan triple systems. 81e:17008

secondary classifications:

- Agrawal, Vishnu K. Micu-type invariants of exceptional simple Lie algebras. (81k:17008)
- Fradkin, E. S. See Kalninkov, O. K.; et al., (81h:81072)
- Kalninkov, O. K. (with Konstein, S. E.; Fradkin, E. S.) Octonions and the exceptional groups of field theory. (81h:81072)
- Konstein, S. E. See Kalninkov, O. K.; et al., (81h:81072)
- Shukuzawa, Osamu (with Yokota, Ichiro) Noncompact simple Lie group $E_{6(6)}$ of type E_6 . (81g:22023a)
- (with Yokota, Ichiro) Noncompact simple Lie groups $E_{6(-14)}$ and $E_{6(2)}$ of type E_6 . (81g:22023b)
- Takahashi, Reiji Quelques résultats sur l'analyse harmonique dans l'espace symétrique non compact de rang 1 du type exceptionnel. (81f:22012)
- Yokota, Ichiro See Shukuzawa, Osamu, (81g:22023a) and Shukuzawa, Osamu, (81g:22023b)

17B30 Solvable, nilpotent algebras

- Bahturin, Ju. A. On homomorphisms of soluble Lie algebras. 81f:17006
- Goodman, Roe Approximating Lie algebras of vector fields by nilpotent Lie algebras. 81e:17009
- Kac, Victor G. Some remarks on nilpotent orbits. 81f:17005
- Kaplansky, Irving Jacobson's lemma revisited. 81d:17006
- Matyśev, F. M. On the nilpotency class of the Engel Lie algebras. (Russian. English summary) 81h:17013

- Sancho de San Román, Juan Formations of associative or Lie algebras. 81b:17014
- Sand, T. On the structure of solvable Lie algebras. 81a:17006
- Tolpygo, A. K. Cohomology of nilpotent Lie algebras and its generating functions. (Russian) 81d:17007
- Yamaguchi, Satoru Derivations and affine structures of some nilpotent Lie algebras. 81c:17015

secondary classifications:

- Baumslag, Gilbert Some reflections on ascending derived series. (81b:20028)
- Guinier, Françoise Caractères des algèbres de Lie résolubles. (English summary) (81d:17009)
- Parfenov, V. A. An example of a locally nilpotent Lie algebra. (Russian) (81m:17016)
- Razmyslov, Ju. P. The nonsolvability of the variety of groups of exponent 4. (81f:20047)
- Remeslennikov, V. N. An algorithmic problem for nilpotent groups and rings. (Russian) (81g:03051)
- Šmel'kin, A. L. See Tavazee, A. D., (81e:20035)
- Tavazee, A. D. (with Šmel'kin, A. L.) Subgroups of free pronilpotent groups. (Russian. Georgian and English summaries) (81e:20035)
- Zel'manov, E. I. Jordan nil algebras of bounded index. (Russian) (81h:17023)

17B35 Universal enveloping algebras, imbeddings

- Block, Richard E. The irreducible representations of the Weyl algebra A_1 . 81e:17010
- Chamarié, Marc Idéaux réflexifs dans les algèbres enveloppantes. (English summary) 81e:17011
- Couture, M. (with Sharp, R. T.) Reduction of enveloping algebras of low-rank groups. 81f:17006
- van Deuren, J.-P. Les centralisateurs dans les anneaux de polynômes gauches sur un anneau commutatif et dans leurs corps de fractions. 81e:17012
- Dixmier, J. Sur la méthode des orbites. 81e:17013
- Algèbres enveloppantes. 81f:17007
- Garland, Howard Erratum: "The arithmetic theory of loop algebras" [J. Algebra 53 (1978), no. 2, 480-551; MR 80a:17012]. 81d:17008
- Green, H. S. See Jarvis, P. D., 81g:17005
- Guinier, Françoise Caractères des algèbres de Lie résolubles. (English summary) 81d:17009
- Jarvis, P. D. (with Green, H. S.) Casimir invariants and characteristic identities for generators of the general linear, special linear and orthosymplectic graded Lie algebras. 81g:17005
- Joseph, A. Dixmier's problem for Verma and principal series submodules. 81e:17016
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- Towards the Jantzen conjecture. III. 81m:17013b
- King, Donald R. Characters of irreducible Harish-Chandra modules and Goldie ranks of their annihilators. 81f:17007
- Levasseur, Thierry Sur le spectre premier d'une algèbre enveloppante d'une algèbre de Lie nilpotente. (English summary) 81m:17014
- Panov, A. N. On the Dixmier mapping. (Russian) 81f:17008
- Rais, Mustapha La représentation coadjointe du groupe affine. (English summary) 81e:17017
- Schmidgen, Konrad Uniform topologies on enveloping algebras. 81m:17015
- Sharp, R. T. See Couture, M., 81f:17006
- Vogan, David A., Jr. A generalized τ -invariant for the primitive spectrum of a semisimple Lie algebra. 81e:17014
- Ordering of the primitive spectrum of a semisimple Lie algebra. 81k:17005

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- Andler, Martin Sur des représentations construites par la méthode des orbites. (English summary) (81e:22025)
- Bincer, Adam M. Missing label operators in the reduction $Sp(2n) \downarrow Sp(2n-2)$. (81f:81020)
- Cauchon, Gérard Commutant des modules de longueur finie sur certaines algèbres filtrées. (81m:16005)
- Jantzen, Jens Carsten ★ Moduln mit einem höchsten Gewicht. (German) [Modules with a highest weight] (81m:17011)
- Kazhdan, David (with Lusztig, George) Representations of Coxeter groups and Hecke algebras. (81j:20066)
- Levasseur, Thierry Propriétés de certains idéaux premiers d'une algèbre enveloppante. (English summary) (81e:16028)
- Lichtman, A. I. On Lie algebras of free products of groups. (81h:17016)
- Lusztig, George See Kazhdan, David, (81j:20066)
- McConnell, John C. On the global dimension of some filtered algebras. (81h:16044)
- Ruchti, René Twisted Hopf algebras. (81e:16012)
- Ufnarovskii, V. A. Poincaré series of graded algebras. (Russian) (81k:16003)
- Yammine, Sleiman Les théorèmes de Cohen-Seidenberg en algèbre non commutative. (81h:16004)

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- Braconnier, Jean Sur les crochets généralisés et quelques unes de leurs applications. 81f:17009
- Luks, Eugene M. Derivation towers of Lie algebras. 81b:17009
- Parfenov, V. A. An example of a locally nilpotent Lie algebra. (Russian) 81m:17016
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- Čekalov, I. V. Riemannian homogeneous spaces generated by automorphisms. (Russian) (81m:53057)

17B45 Lie algebras of linear algebraic groups [See also 14Lxx and 20Gxx.]

Reineke, John H. Lie algebras and affine algebraic groups. 81j:17010

secondary classifications:

Donkin, Stephen. Rationally injective modules for semisimple algebraic groups as direct limits. (81f:20052)

On a question of Verma. (81h:20049)

Nieml, Henry. On the construction of the irreducible representations of the hyperalgebra of a universal Chevalley group. (81k:20056)

Rucht, René. Twisted Hopf algebras. (81c:16012)

Wefsfeller, Boris. On Lie algebras of differential formal groups of Ritt. (81f:14027)

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Amayo, Ralph K. (with Schwarz, Jochen) Modularity in Lie algebras. 81k:17007

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Lichtman, A. I. On Lie algebras of free products of groups. 81h:17016

Melkjan, G. M. Simple Lie algebras of characteristic 5. (Russian) 81d:17011

Schwarz, Jochen. See Amayo, Ralph K., 81k:17007

Wilson, Robert Lee. Simple Lie algebras of type S . 81c:17019

secondary classifications:

Benkart, Georgia (with Isaacs, I. M.) Lie algebras with nilpotent centralizers. (81c:17022)

Isaacs, I. M. See Benkart, Georgia, (81c:17022)

Takeuchi, Mitsuhiro. On extensions of Lie algebras by algebras. (81i:14030)

17B55 Homological methods in Lie algebras

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secondary classifications:

Liebeck, Martin W. Lie algebras, 2-graphs and permutation groups. (81f:05095)

Tolpygo, A. K. Cohomology of nilpotent Lie algebras and its generating functions. (Russian) (81d:17007)

17B56 Cohomology of Lie algebras

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Dzmadzidze, A. S. (with Kostrikin, A. I.) Deformations of the Lie algebra $W(m)$. (Russian) 81k:17008

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Williams, Floyd L. Lie algebra cohomology of infinite-dimensional modules. 81f:17010

secondary classifications:

Cahen, M. (with Gutt, S.; De Wilde, Marc) Local cohomology of the algebra of C^∞ functions on a connected manifold. (81f:58046)

De Wilde, Marc. See Cahen, M.; et al., (81f:58046)

Enright, Thomas J. (with Wallach, Nolan R.) Notes on homological algebra and representations of Lie algebras. (81c:17013)

Gualandri, Luciano. On the 1-differentiable cohomology of Lie algebra of the conform infinitesimal symplectic transformations. (Italian summary) (81h:58034)

Gutt, S. See Cahen, M.; et al., (81f:58046)

Pennay, Richard C. Lie cohomology of representations of nilpotent Lie groups and homomorphically induced representations. (81i:22005)

Wallach, Nolan R. See Enright, Thomas J., (81c:17013)

17B60 Lie rings associated with other structures (associative, Jordan, etc.) [See also 15A30, 16A68, 17C40, 17C50.]

secondary classifications:

Ferrar, J. C. On the classification of Freudenthal triple systems and Lie algebras of type E_7 . (81g:17004)

Grand, Georges. Platitude de la structure adjointe sur un groupe de Lie. (English summary) (81f:53049)

Helmstetter, Jacques. Radical d'une algèbre symétrique à gauche. (English summary) (81f:17002)

Krasišnik, I. S. Hamiltonian cohomology of canonical algebras. (Russian) (81f:58043)

Kleinow, Gerd. Über Automorphismenbahnen von Elementen $u \neq 0$ mit $(ad\ u)^2 = \alpha ad\ u$ in endlichdimensionalen einfachen komplexen Lie-Algebren. (English summary) (81c:17012)

Robinson, Derek W. (with Stormer, Erling) Lie and Jordan structure in operator algebras. (81d:46067)

Stormer, Erling. See Robinson, Derek W., (81d:46067)

Taniguchi, Yoshiaki. On a kind of pairs of Lie triple systems. (81d:17002)

17B65 Infinite-dimensional Lie algebras [See also 22E65.]

Avez, André. Représentations de Dirac de l'algèbre de Lie des polynômes en les

coordonnées canoniques munie du crochet de Poisson. (English summary) 81h:17008

Baur, H. (with Stammbach, Urs) A note on parafree Lie algebras. 81h:17017

Braconnier, Jean. Applications des crochets généralisés aux algèbres de Lie et de Poisson. (English summary) 81c:17015

Feigin, B. L. Cohomology of groups and of algebras of flows. (Russian) 81h:17018

Finkel, Alex Jay. A hyperbolic GCM Lie algebra and the Fibonacci numbers. 81k:17009

Frenkel, I. B. Spinor representations of affine Lie algebras. 81j:17011

Gein, A. G. The lattice of subalgebras of a nilpotent Lie algebra. (Russian) 81a:17007

Gruško, P. Ja. Deformability of filtered Lie algebras. (Russian) 81h:17019

de la Harpe, Pierre. The algebra of compact operators does not have any finite-codimensional ideal. 81h:17010

Ilamed, Yehiel. On realizations of infinite-dimensional Lie-admissible algebras. 81d:17012

Kamiya, Noriaki. On the Jacobson radicals of infinite dimensional Lie algebras. 81j:17012

Kukin, G. P. Subalgebras of finitely presented Lie algebras. (Russian) 81k:17010

Lecomte, Pierre B. A. Lie algebras of order 0 on a manifold. 81m:17018

On some ideals of a Lie algebra of order zero. (French summary) 81m:17019

Lepowsky, James. Application of the numerator formula to k -rowed plane partitions. 81f:17011

Moody, Robert V. Root systems of hyperbolic type. 81g:17006

Nakanishi, Nobutada. The first cohomology groups of infinite-dimensional Lie algebras. 81i:17009

Stammbach, Urs. See Baur, H., 81h:17017

Stewart, Ian. The minimal condition for subideals of Lie algebras implies that every ascending subalgebra is a subideal. 81f:17013

Tôgô, Shigeaki. Weakly ascending subalgebras of Lie algebras. 81h:17011

secondary classifications:

Amayo, Ralph K. (with Schwarz, Jochen) Modularity in Lie algebras. (81k:17007)

Antonec, M. A. The algebra of Weyl symbols and the Cauchy problem for regular symbols. (Russian) (81b:47059)

Cassidy, Phyllis Joan. Differential algebraic Lie algebras. (81j:12020)

Cattaneo, U. (with Wreszinski, W.) Trotter limits of Lie algebra representations and coherent states. (81a:17005)

Filtes, Michel. Realizations of nonlinear systems and abstract transitive Lie algebras. (81m:93019)

Frenkel, I. E. See Reiman, A. G.; et al., (81c:58042)

Fronsdal, Christian. Some ideas about quantization. (81a:81014)

Govorov, A. B. The principle of the indistinguishability of identical particles and the Lie algebraic approach to the field quantization. (81j:81022)

Gualandri, Luciano. On the 1-differentiable cohomology of Lie algebra of the conform infinitesimal symplectic transformations. (Italian summary) (81h:58034)

de la Harpe, Pierre. Les extensions de $gl(E)$ par un noyau de dimension finie sont triviales. (English summary) (81h:22019)

Jaganathan, R. (with Vasudevan, R.) A note on representation of para-Fermi algebra. (81g:81031)

Kac, Victor G. (with Kazhdan, David) Structure of representations with highest weight of infinite-dimensional Lie algebras. (81d:17004)

Kazhdan, David. See Kac, Victor G., (81d:17004)

Lecomte, Pierre B. A. On a class of local Lie algebras over a manifold. (81c:58067)

Lepowsky, James (with Moody, Robert V.) Hyperbolic Lie algebras and quasiregular cusps on Hilbert modular surfaces. (81c:10030)

Lichnerowicz, André. Dérivations et automorphismes pour des algèbres formelles associées par déformation à une variété symplectique. (English summary) (81e:58028)

Maslov, V. P. (with Šil'marev, I. A.) The 7-product of hypoelliptic Hamiltonians. (Russian) (See 80f:35002)

Moody, Robert V. See Lepowsky, James, (81c:10030)

Nakanishi, Nobutada. Lie subalgebras of finite codimension of the classical infinite Lie algebras. (81j:58008)

Paley, Théodore D. S-matrix for interacting A-fields. (81k:81044)

Patissier, Guy. Déformations différentielles à coefficients constants et produits de Moyal généralisés. (81e:58029)

Reiman, A. G. (with Semenov-Tjan-Sankii, M. A.; Frenkel, I. E.) Graded Lie algebras and completely integrable dynamical systems. (Russian) (81c:58042)

Santilli, Ruggero Maria. On a possible Lie-admissible covering of the Galilei relativity in Newtonian mechanics for nonconservative and Galilei form-noninvariant systems. (81g:83004a)

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Širokov, Ju. M. Algebra of one-dimensional generalized functions. (Russian. English summary) (81c:46033)

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Wreszinski, W. See Cattaneo, U., (81a:17005)

17B70 Graded Lie algebras

Aragone, C. (with Chela-Flores, J.; Restuccia, A.) The Baker-Campbell-Hausdorff formula for the $SU(2)$ supergroups. 81i:17010

Boyer, Charles P. Formal algebraic models of graded differential geometry. 81j:17014

Chela-Flores, J. See Aragone, C.; et al., 81i:17010

Faulkner, John R. Dynkin diagrams for Lie triple systems. 81c:17021

Ishovskii, V. D. The stability of superalgebras in models of supergravitation. (Russian.)

English summary 81b:17020

Parker, Monique Classification of real simple Lie superalgebras of classical type. 81g:17007

Restuccia, A. See Aragone, C.; et al., 81i:17010

secondary classifications:

Backhouse, Nigel The representation of Lie superalgebras. (81b:17005)

Computing the invariants of Lie superalgebras. (81b:17006)

Ėyting, G. O. Graded Lie algebras with long gradings. (Russian) (81c:17018)

Frenkel, I. E. See Reiman, A. G.; et al., (81c:58042)

Gregory, Thomas B. Simple Lie algebras with classical reductive null component. (81b:17015)

Grishko, P. Ja. Deformability of filtered Lie algebras. (Russian) (81b:17019)

Kac, Victor G. Some remarks on nilpotent orbits. (81b:17005)

Lepowsky, James Generalized Verma modules, loop space cohomology and MacDonald-type identities. (81a:17004)

Paley, David Fock space representations of the Lie superalgebra $A(0, n)$. (81b:17005)

Reiman, A. G. (with Semenov-Tjan-Sankii, M. A.; Frenkel, I. E.) Graded Lie algebras and completely integrable dynamical systems. (Russian) (81c:58042)

Semenov-Tjan-Sankii, M. A. See Reiman, A. G.; et al., (81c:58042)

Trlifaj, L. Exceptional and orthosymplectic graded Lie algebras. (81c:17003)

17B99 None of the above, but in this section

Bakhturin, Ju. A. Identities of two variables in Lie algebra $sl(2, k)$. (Russian) 81d:17013

Benkart, Georgia (with Isaacs, I. M.) Lie algebras with nilpotent centralizers. 81c:17022

Gelis, A. G. Dualisms of Lie algebras. (Russian) 81j:17015

Isaacs, I. M. See Benkart, Georgia, 81c:17022

Lablil, A. A. Projection of pure supersolvable Lie rings. (Russian) 81k:17011

secondary classifications:

Ilamed, Yehiel On realizations of vector products by polynomials which are identities for matrix rings. (81m:15021)

Osura, Hirohumi Wave functions of collective octupole vibration. (81c:81085)

17Cxx Jordan algebras (commutative)

17C05 Identities

Hentzel, Irvin Roy Special Jordan identities. 81a:17008

17C10 Structure theory

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McCrimmon, Kevin Peirce ideals in Jordan algebras. 81i:17011

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Osborn, J. Marshall (with Racine, Michel) Jordan rings with nonzero socle. 81a:17009 (with Racine, Michel) Prime Jordan P.I. algebras with nonzero socle and Jordan division algebras. 81b:17021

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Zel'manov, E. I. Jordan algebras with finiteness conditions. (Russian) 81b:17022

Primary Jordan algebras. (Russian) 81k:17012

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17C15 Representations

17C20 Simple, semisimple algebras

Neher, Erhard Cartan-Involutions von halbeinfachen reellen Jordan-Tripelsystemen. 81f:17012

secondary classifications:

Zel'manov, E. I. Primary Jordan algebras. (Russian) (81k:17012)

17C25 Universal enveloping algebras

17C30 Automorphisms, derivations, other operators

Petersson, Holger P. Conjugacy of idempotents in Jordan pairs. 81m:17022

17C35 Formally real domains of positivity [See also 32Nxx.]

secondary classifications:

Béllissard, Jean (with Iochum, Bruno) Spectral theory for facially homogeneous symmetric self-dual cones. (81f:47037)

Iochum, Bruno See Béllissard, Jean, (81f:47037)

17C40 Exceptional Jordan algebras and associated Lie groups

Blix, Robert Octonion planes over local rings. 81k:17013

Lin, Ts'ung Yuan Idempotents in the exceptional Jordan algebra. 81f:17013

secondary classifications:

Ferrar, J. C. On the classification of Freudenthal triple systems and Lie algebras of type E_7 . (81g:17004)

17C45 Homological methods in Jordan algebras

17C46 Cohomology of Jordan algebras

17C50 Jordan rings associated with other structures [See also 16A68, 17B60.]

Hogben, Leslie Radicals and semiprime ideals of Jordan triple systems. 81a:17011

secondary classifications:

Ajupov, Š. A. Topological partially ordered Jordan algebras. (Russian) (81m:17023)

Hirzebruch, Ulrich A generalization of Tits' construction of Lie algebras by Jordan algebras to Jordan triple systems. (81c:17006)

Petersson, Holger P. Classification of locally compact Jordan division rings. (81a:17012)

17C65 Infinite-dimensional Jordan algebras

Ajupov, Š. A. Topological partially ordered Jordan algebras. (Russian) 81m:17023

Petersson, Holger P. Classification of locally compact Jordan division rings. 81a:17012

Upmeyer, Harald Derivation algebras of JB-algebras. 81f:17014

Erratum: "Derivation algebras of JB-algebras" [Manuscripta Math. 30 (1979), no. 2, 199-214; MR 81f:17014]. 81j:17016

Derivations of Jordan C^* -algebras. 81m:17024

secondary classifications:

Ajupov, Š. A. See Sarymsakov, T. A., (81a:17010)

Alfsen, Erik M. On the state spaces of Jordan and C^* -algebras. (French summary) (81c:46050)

(with Hanche-Olsen, Harald; Shultz, Frederic W.) State spaces of C^* -algebras. (81g:46074)

Behncke, Horst JB algebras with an exceptional ideal. (81b:46062a)

(with Bös, W.) JB algebras with an exceptional ideal. (81b:46062b)

Hermitian Jordan Banach algebras. (81f:46065)

Bojadžiev, Hristo N. Order characterization of some Banach Jordan algebras. (81i:46068)

Bös, W. See Behncke, Horst, (81b:46062b)

Hanche-Olsen, Harald A note on the bidual of a JB-algebra. (81m:46079)

See also Alfsen, Erik M.; et al., (81g:46074)

Mingo, James A. Jordan subalgebras of Banach algebras. (81b:46092)

Pedroza, A. C. (with Vianna, J. D. M.) On the Jordan algebra and the symmetric formulation of classical mechanics. (81b:70009)

Putter, P. S. (with Yood, Bertram) Banach Jordan $*$ -algebras. (81i:46066)

Robinson, Derek W. (with Störmer, Erling) Lie and Jordan structure in operator algebras. (81d:46067)

Sarymsakov, T. A. (with Ajupov, Š. A.) Partially ordered Jordan algebras. (Russian) (81a:17010)

Schmutz, M. Explicit representations of a single para-Bose operator. (81i:81045)

Shultz, Frederic W. See Alfsen, Erik M.; et al., (81g:46074)

Störmer, Erling See Robinson, Derek W., (81d:46067)

Vianna, J. D. M. See Pedroza, A. C., (81b:70009)

Yood, Bertram See Putter, P. S., (81i:46066)

17C99 None of the above, but in this section

McCrimmon, Kevin Peirce ideals in Jordan triple systems. 81i:17012

17Dxx Other nonassociative rings and algebras

17D05 Alternative rings

Gardner, B. J. Extending commutativity results to alternative rings. 81b:17014

Hentzel, Irvin Roy (with Kleinfeld, Erwin; Smith, Harry F.) The nucleus in alternative rings with idempotent. 81b:17012

Kleinfeld, Erwin See Hentzel, Irvin Roy; et al., 81b:17012

Medvedev, Ju. A. Local finiteness of periodic subloops of an alternative PI-ring. (Russian) 81i:17013

Prohanov, N. S. On the problem of the basis of a free alternative Φ -algebra. (Russian) 81j:17017

Šestakov, I. P. A problem of Širšov. (Russian) 81c:17023

Free alternative algebras. (Russian) 81c:17016

Smith, Harry F. See Hentzel, Irvin Roy; et al., 81b:17012

17D10 Mal'cev rings

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17D15 Right alternative rings

17D20 (γ, δ) -rings

17D25 Lie admissible algebras

17D92 Genetic algebras

17D99 None of the above, but in this section

Holgate, P. Genetic algebras for some inbreeding systems. 81b:17015

Kleinfeld, Erwin (with Kleinfeld, Margaret Humm) Rings of type (γ, δ) without zero divisors are associative. 81f:17015

Kleinfeld, Margaret Humm See Kleinfeld, Erwin, 81f:17015

Ko, Young So (with Myung, Hyo Chul) On Lie-admissible algebras associated with invariant bilinear forms. 81h:17024

Myung, Hyo Chul See Ko, Young So, 81h:17024

Ng, Seong Nam Right nucleus in right alternative algebras. 81m:17025

Oehmke, Robert H. Some elementary structure theorems for a class of Lie-admissible algebras. 81h:17025

Santilli, Ruggero Maria Status of the mathematical and physical studies on the Lie-admissible formulations on July 1979, with particular reference to the strong interactions. 81d:17014a

Errata: "Status of the mathematical and physical studies on the Lie-admissible formulations on July 1979, with particular reference to the strong interactions". 81d:17014b

secondary classifications:

Myung, Hyo Chul (with Santilli, Ruggero Maria) Further studies on the recently proposed experimental test of Pauli's exclusion principle for the strong interactions. (81b:17001)

Okubo, Susumu Octonion, pseudo-alternative, and Lie-admissible algebras. (81a:17002)

Santilli, Ruggero Maria See Myung, Hyo Chul, (81b:17001)

18-XX CATEGORY THEORY, HOMOLOGICAL ALGEBRA

18-01 Elementary exposition, textbooks

(Buchsteiner-Kiesling, E.) See Semadeni, Zbigniew; et al., 81f:18001

Herrlich, Horst (with Strecker, George E.) ★Category theory. 81e:18001

Semadeni, Zbigniew (with Wiweger, Antoni) ★Einführung in die Theorie der Kategorien und Funktoren. (German) [Introduction to the theory of categories and functors] 81f:18001

Strecker, George E. See Herrlich, Horst, 81e:18001

Wiweger, Antoni See Semadeni, Zbigniew, 81f:18001

secondary classifications:

Dodson, C. T. J. ★Categories, bundles and spacetime topology. (81i:83001)

Naudé, Gert Limits and adjoint situations in mathematical structures. (Afrikaans. English summary) (81j:00003)

18-02 Advanced exposition (research surveys, monographs, etc.)

Pultr, Aleš (with Šedivá-Trnková, Věra) ★Combinatorial, algebraic and topological representations of groups, semigroups and categories. 81d:18001

Šedivá-Trnková, Věra See Pultr, Aleš, 81d:18001

secondary classifications:

Herrlich, Horst (with Strecker, George E.) ★Category theory. (81e:18001)

Strecker, George E. See Herrlich, Horst, (81e:18001)

18-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Mac Lane, Saunders Origins of the cohomology of groups. (81j:01030)

18-04 Explicit machine computation and programs (not the theory of computation or programming)

18-06 Proceedings, conferences, etc.

(Herrlich, Horst) See Structure of topological categories, 81a:18001

(Hoeheke, Hans-Jürgen) See Algebraische Modelle, Kategorien und Gruppoide, 81b:18001

(Hoffmann, Rudolf-Eberhard) See Structure of topological categories, 81a:18001

(Ponst, Hans-Eberhard) See Structure of topological categories, 81a:18001

(Wichniewsky, Manfred Bernd) See Structure of topological categories, 81a:18001

Algebraische Modelle, Kategorien und Gruppoide ★Algebraische Modelle, Kategorien und Gruppoide. (German) [Algebraic models, categories and groupoids] 81b:18001

Bremen ★Structure of topological categories. 81a:18001

Categories ★Algebraische Modelle, Kategorien und Gruppoide. (German) [Algebraic models, categories and groupoids] 81b:18001

Conference:

Spanish-Portuguese, Mathematical ★Trabajos sobre triples. (Spanish) [Papers on triples] 81e:18002

Structure of Topological Categories ★Structure of topological categories. 81a:18001

Groupoids ★Algebraische Modelle, Kategorien und Gruppoide. (German) [Algebraic models, categories and groupoids] 81b:18001

Papers: Triples ★Trabajos sobre triples. (Spanish) [Papers on triples] 81e:18002

San Félix de Guixols ★Trabajos sobre triples. (Spanish) [Papers on triples] 81e:18002

Structure of topological categories ★Structure of topological categories. 81a:18001

Topological categories ★Structure of topological categories. 81a:18001

Triples ★Trabajos sobre triples. (Spanish) [Papers on triples] 81e:18002

18Axx General theory of categories and functors

18A05 Definitions, generalizations

Arnaudov, Y. N. See Topenčarov, Vladimir V., 81j:18005

Barr, Michael Abstract Galois theory. 81m:18001

Ohlhoff, H. J. K. Discrete functors. 81j:18001

Topenčarov, Vladimir V. Quelques exemples de (n) -catégories. (Bulgarian and Russian summaries) 81j:18002Sur les $[n]$ -catégories. (Romanian summary) 81j:18003Un exemple-type de (n) -catégorie. 81j:18004(with Arnaudov, Y. N.) Recouvrement des (n) -catégories. 81j:18005

secondary classifications:

Bozapalidis, Syméon Some remarks on lax presheaves. (81m:18006)

18A10 Graphs, diagram schemes, precategories, neocategories [See also 20Lxx.]

18A15 Foundations, relations to logic and deductive systems [See also 03-XX.]

Blanc, Georges Théories égalitaires dans les langages sur types de graphes. 81f:18002

secondary classifications:

Boffa, Maurice (with Cherlin, Gregory) Élimination des quantificateurs dans les faisceaux. (English summary) (81f:03037)

Cagnoni, Donatella (with Meloni, Gian Carlo) Free adjunction and a natural calculus for a general logical operator. (Italian. English summary) (81f:03077)

Cherlin, Gregory See Boffa, Maurice, (81f:03037)

Meloni, Gian Carlo See Cagnoni, Donatella, (81f:03077)

Rohlin, J.-R. On functorializing usual first-order model theory. (81f:03051)

Seely, R. A. G. Weak adjointness in proof theory. (81b:03063)

18A20 Epimorphisms, monomorphisms, special classes of morphisms, null morphisms, factorization (bicatégoriques)

Herrlich, Horst (with Salicrú López, Graciela; Vázquez, R.) Light factorization structures. 81e:18003

Miskin, V. V. Inductively irreducible epimorphisms. 81m:18002

Salicrú López, Graciela See Herrlich, Horst; et al., 81e:18003

Schwab, Emil Über Nullfolgen in regulären Kategorien. (Romanian summary) 81f:18003

Tofan, I. Remarques sur les foncteurs d'intérieur et sur les idéaux dans une catégorie. 81g:18001

Vázquez, R. See Herrlich, Horst; et al., 81e:18003

Veselý, Vítězslav A concentration of categories with noninjective monomorphisms. 81a:18002

secondary classifications:

Arbib, Michael A. (with Manes, Ernest G.) Generalized Hankel matrices and system realization. (81m:93007)

Horák, Pavel Note on category of spaces of parallelism. (81m:54046)

Manes, Ernest G. See Arbib, Michael A., (81m:93007)

Pastor, Ana A category-theoretical characterization of surjective homomorphisms of partial algebras. (81m:08009)

18A22 Special properties of functors (faithful, full, etc.)

Wichniewsky, Manfred Bernd A generalized duality theorem for structure functors. 81d:18002

18A23 Natural morphisms, dinatural morphisms

secondary classifications:

Assem, I. A. (with Chehata, C. G.; El Gendy, M.) The Hom and tensor functors with mixed limits. (81d:18003)

Chehata, C. G. See Assem, I. A.; et al., (81d:18003)

El Gendy, M. See Assem, I. A.; et al., (81d:18003)

18A25 Functor categories, comma categories

secondary classifications:

Höppner, Michael (with Lenzing, Helmut) Projective diagrams over partially ordered sets are free. (81m:18012)

Kaphengst, H. (with Reichel, Horst) Finite limit-colimit completions of small categories. (81d:18004)

Lenzing, Helmut See Höppner, Michael, (81m:18012)

Reichel, Horst See Kaphengst, H., (81d:18004)

18A30 Limits and colimits (products, sums, directed limits, pushouts, fiber products, equalizers, kernels, ends and coends, etc.)

Assem, I. A. (with Chehata, C. G.; El Gendy, M.) The Hom and tensor functors with

mixed limits. **81d:18003**

Chenata, C. G. See Assem, I. A.; et al., **81d:18003**

Diers, Yves Familles universelles de morphismes. (English summary) **81i:18001**

El Gendy, M. See Assem, I. A.; et al., **81d:18003**

Trotter, P. G. Nonexistence of coreflections and coproducts in some subcategories of semigroups. **81f:18004**

secondary classifications:

Reggiani, Cristina Conservation of the SH of type $V3$ in direct limits. (Italian. English summary) **(81a:03029)**

18A32 Factorization of morphisms (via images, coimages, dominions, codominions), substructures, quotient structures, congruences, amalgams

Bailey, C. (with Baird, G. R.) Divisibility in categories. **81k:18001**

Baird, G. R. See Bailey, C., **81k:18001**

Tiller, John A. Component subcategories. **81h:18001**

secondary classifications:

Herrlich, Horst (with Strecker, George E.) Semi-universal maps and universal initial completions. **(81f:18005)**

Reiterman, Jan Small-fibred semitopological functors without small-fibred initial completions. **(81f:18007)**

Strecker, George E. See Herrlich, Horst, **(81f:18005)**

18A35 Categories admitting limits (complete categories), functors commuting with limits, continuous functors, completions

Herrlich, Horst (with Strecker, George E.) Semi-universal maps and universal initial completions. **81f:18005**

Kaphengst, H. (with Reichel, Horst) Finite limit-colimit completions of small categories. **81d:18004**

Kazim, M. A. (with Zaidi, S. M. A.; Khan, B.) On characterization of a complete category. **81m:18003**

Khan, B. See Kazim, M. A.; et al., **81m:18003**

Kumbhojkar, H. V. On the structure of initial objects of fibre categories. **81c:18001**

Meyer, Carol V. Approximation filtrante de diagrammes finis par Pro-C. **81f:18006**

Porter, Timothy Essential properties of pro-objects in Grothendieck categories. **81c:18002**

Reichel, Horst See Kaphengst, H., **81d:18004**

Reiterman, Jan Small-fibred semitopological functors without small-fibred initial completions. **81f:18007**

Stamper, H. B. On an embedding of a category into its completion. **81d:18005**

Strecker, George E. See Herrlich, Horst, **81f:18005**

Zaidi, S. M. A. See Kazim, M. A.; et al., **81m:18003**

18A40 Adjoint functors (representable functors, universal constructions, reflective subcategories, reflections, etc.), constructions of adjoints (Kan extensions, etc.)

Brümmer, G. C. L. See Fay, Temple H.; et al., **81g:18002**

Chouinard, Leo G., II Transfer maps. **81j:18006**

Cicogna, G. A method from categories for introducing a general notion of convergence and limit. **81k:18002**

Day, Brian J. On topological modules and duality. **81d:18006**

Fay, Temple H. (with Brümmer, G. C. L.; Hardie, K. A.) A characterization of topological functors. **81g:18002**

Hardie, K. A. See Fay, Temple H.; et al., **81g:18002**

Kacov, E. B. Letter to the editors: "The tensor product of functors" [Sibirsk. Mat. Ž. 19 (1978), no. 2, 318–327, 478; MR 80d:18002]. (Russian) **81a:18003**

Lorenz, Klaus Jürgen Reflexive Objekte in einer Funktorkategorie mit Dualität. **81j:18007**

Port, Hans-Eberhard A survey on the categorical treatment of dualities. **81c:18003**

Street, Ross (with Tholen, Walter; Wischnewsky, Manfred Bernd; Wolff, Harvey) Semitopological functors. III. Lifting of monads and adjoint functors. **81g:18003**

Tholen, Walter Lifting semifinal liftings. **81a:18004**

Note on total categories. **81h:18002**

See also Street, Ross; et al., **81g:18003**

Wakamatsu, Takayoshi Note on adjoints. **81d:18007**

Wischnewsky, Manfred Bernd Structure functors. Representation and existence theorems. **81d:18008**

See also Street, Ross; et al., **81g:18003**

Wolff, Harvey See Street, Ross; et al., **81g:18003**

secondary classifications:

Bozapalides, Symeon Some remarks on lax presheaves. **(81m:18006)**

Calder, Allan (with Siegel, Jerrold) Kan extensions of homotopy functors. **(81b:55032)**

Cicogna, G. A "categorical" analysis of the notion of convergence. (Italian. English summary) **(81m:54020)**

Davey, Brian A. Topological duality for prevarieties of universal algebras. **(81b:54010)**

Diers, Yves Familles universelles de morphismes. (English summary) **(81i:18001)**

Dianeldze, G. Z. Satellites with respect to Galois extensions. (Russian. English summary) **(81d:13004)**

Fay, Temple H. Epireflective subcategories of valued groups. **(81g:18008)**

Fret, Armin Kan extensions along full functors: Kan and Čech extensions of homotopy invariant functors. **(81k:55006)**

MacDonald, John L. A categorical approach to primary and secondary operations in topology. **(81d:55021)**

Nanda, Sribatsa ★ Adams completion and its applications. **(81m:55011)**

Adams completion for cohomology theories arising from Kan extensions.

(81k:55020)

Ohlhoff, H. J. K. Discrete functors. **(81j:18001)**

Salicrup López, Graciela Epireflexivity and connexity in concrete topological categories. (Spanish) **(81j:18010)**

Siegel, Jerrold See Calder, Allan, **(81b:55032)**

Trotter, P. G. Nonexistence of coreflections and coproducts in some subcategories of semigroups. **(81f:18004)**

Wischnewsky, Manfred Bernd A generalized duality theorem for structure functors. **(81f:18012)**

Wood, R. J. From tensor products to products. **(81i:18008)**

18A99 None of the above, but in this section

Dekov, D. V. Précatégories quotient. **81i:18002a**

Classes polaires quotient. **81i:18002b**

Herrlich, Horst (with Nakagawa, R.; Strecker, George E.; Titcomb, T.) Equivalence of topologically-algebraic and semitopological functors. **81f:18006**

Kastl, J. Inverse categories. **81f:18009**

Mora, Ferdinando On quotient categories. (Italian summary) **81f:18010**

Nakagawa, R. See Herrlich, Horst; et al., **81f:18006**

Schwab, Emil Über Kongruenzen in regulären Kategorien. **81g:18004**

Strecker, George E. See Herrlich, Horst; et al., **81f:18006**

Strecker, Reinhard Das Radikal K für kleine Kategorien K . **81c:18004**

Tholen, Walter (with Wischnewsky, Manfred Bernd) Structure functors. External characterizations. **81f:18011**

Titcomb, T. See Herrlich, Horst; et al., **81f:18006**

Wischnewsky, Manfred Bernd A generalized duality theorem for structure functors. **81f:18012**

See also Tholen, Walter, **81f:18011**

secondary classifications:

Andréka, Hajnal (with Németi, István) Formulas and ultraproducts in categories. **(81m:18004)**

Babnev, A. A. (with Solov'ev, S. V.) A coherence theorem for canonical morphisms in Cartesian closed categories. (Russian. English summary) **(81g:03074)**

Deuber, Walter (with Rothschild, Bruce L.) Categories without the Ramsey property. **(81b:05081)**

Furtado-Coelho, João Functors associated with varieties of universal algebras. (Portuguese) **(81m:08002)**

Németi, István See Andréka, Hajnal, **(81m:18004)**

Rothschild, Bruce L. See Deuber, Walter, **(81b:05081)**

Shafat, Ahmad Consistency in categorical languages for algebras. **(81j:03061)**

Solov'ev, S. V. See Babnev, A. A., **(81g:03074)**

Tholen, Walter Lifting semifinal liftings. **(81a:18004)**

Upham, Mary H. Two remarks on duality. **(81c:16003)**

18Bxx Special categories

18B05 Category of sets, characterizations [See also 03--XX.]

18B10 Category of relations, additive relations

Calenko, M. Š. See Margolin, A. A., **81f:18013**

Margiocco, Marco The maximum symmetrisation of a category. (Italian) **81g:18005**

Margolin, A. A. (with Calenko, M. Š.) Schreier's theorem in categories with involution. (Russian) **81f:18013**

Rachúnek, Jiří Categories of systems of X -relations. **81k:18003**

Vescan, Robert T. Categories of relations with standard factorizations. **81h:18003**

secondary classifications:

Amerbaev, V. M. (with Kasimov, Ju. F.) Calculation in algebraic structures. (Russian) **(81k:68025)**

Kasimov, Ju. F. See Amerbaev, V. M., **(81k:68025)**

Petrich, Mario Some categorical equivalences for E -unitary inverse semigroups. **(81h:20083)**

18B15 Imbedding theorems, universal categories [See also 18E20.]

Adámek, Jiří (with Herrlich, Horst; Strecker, George E.) The structure of initial completions. **81d:18009**

Bürger, Reinhard Legitimacy of certain topological completions. **81c:18005**

Bozapalides, Symeon Distributeurs au-dessus d'une catégorie. **81c:18004**

Herrlich, Horst See Adámek, Jiří; et al., **81d:18009**

Kollár, János The category of unary algebras, containing a given subalgebra. I. **81c:18005**

Strecker, George E. See Adámek, Jiří; et al., **81d:18009**

Wells, Charles A. Kohn-Rhodes theorem for categories. **81g:18006**

secondary classifications:

Guitart, René Tenseurs et machines. **(81j:18012)**

Kastl, J. Inverse categories. **(81f:18009)**

Pultr, Aleš (with Šedivá-Trnková, Věra) ★ Combinatorial, algebraic and topological representations of groups, semigroups and categories. **(81d:18001)**

Šedivá-Trnková, Věra See Pultr, Aleš, **(81d:18001)**

18B20 Categories of machines, automata, operative categories [See also 03D05, 68Dxx, 68F10.]

- Adámek, Jiří *Categorical realization theory. I.* 81f:18014a
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- Amerbaev, V. M. (with Kasimov, Ju. F.) *Calculation in algebraic structures.* (Russian) (81k:68025)
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- Cioabă, G. *A method from categories for introducing a general notion of convergence and limit.* (81k:18002)
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- Andréka, Hajnal (with Németi, István) *Formulas and ultraproducts in categories.* 81m:18004
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- Belman-Fleming, Sydney** (with McDowell, K.) Flatness and projectivity in commutative regular semigroups. (81c:20067)
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- Minimalfunktionen auf der Kategorie der abzählbar unendlichen zusammenhängenden Graphen mit ausreichender Bindung. (81d:05049)
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- Pop, Maria S.** On the reduction of n -groups to groups. (Romanian. English summary) (81d:20067)
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- Rosebrugh, Robert D.** See **Pelletier, Jean Wick**, (81c:46055)
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- Modeling languages and software for hybrid computer systems** ★Языки моделирования и программное обеспечение гибридных вычислительных систем. (Russian) [Modeling languages and software for hybrid computer systems] (81c:68005)

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- 18C05** Equational categories [See also 03-XX, 08C05.]

- 18C10** Theories (e.g. algebraic theories), structure, and semantics [See also 03-XX.]

- Borceux, Francis** (with Day, Brian J.) Universal algebra in a closed category. 81f:18023
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- 18C15** Triples (= standard construction, monad or triad), algebras for a triple, homology and derived functors for triples [See also 18Gxx.]

- Adámek, Jiří** On the cogeneration of algebras. 81a:18006
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- 18D10** Monoidal categories (= multiplicative categories)

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- 18D15** Closed categories (closed monoidal and Cartesian closed categories, etc.)

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- Rada, Alexandru Gh.** Quelques catégories cartésiennes remarquables. 81g:18014

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- Ehresmann, André Charles** (with Ehresmann, Charles) Multiple functors. IV. Monoidal closed structures on Cat. (81g:18010)

- Ehresmann, Charles** See **Ehresmann, André Charles**, (81g:18010)

- Lindner, Harald** Affine parts of monads. (81f:18026)

- 18D20** Enriched categories (over closed or monoidal categories)

- Barr, Michael** ★*-autonomous categories. 81b:18008

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18E25 Derived functors and satellites

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18Fxx Categories and geometry

18F05 Local categories and functors

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18F15 Abstract manifolds and fiber bundles [See also 55Rxx, 57Pxx.]

Lohre, Eckhard Generalized manifolds. 81d:18020

Väisälä, Jussi An axiomatic approach to the theory of manifolds. 81d:18021

secondary classifications:

Dubuc, Eduardo J. Sur les modèles de la géométrie différentielle synthétique. (81c:58003)

Kock, Anders (with Reyes, Gonzalo E.) Manifolds in formal differential geometry. (81d:58001)

(with Reyes, Gonzalo E.) Connections in formal differential geometry. (81h:53030)

Reyes, Gonzalo E. See Kock, Anders, (81d:58001) and Kock, Anders, (81h:53030)

18F20 Presheaves and sheaves [See also 14F05, 32C35, 32L10, 54B40, 55N30.]

Batbedat, André Représentations sectionnelles des algèbres à produit. (English summary) 81k:18006

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secondary classifications:

Banaschewski, Bernhard Injective Banach sheaves. (81j:46109)

Burden, Charles W. (with Mulvey, Christopher J.) Banach spaces in categories of sheaves. (81h:46095)

- The Hahn-Banach theorem in a category of sheaves. (81b:46096)
Golan, Jonathan S. A note on Lambek's representation sheaf. (81e:16024)
 Two sheaf constructions for noncommutative rings. (81h:16046)
Golovin, V. D. The functors "ext" for sheaves and cosheaves. (Russian) (81h:32011)
 (Grothendieck, Alexandre) See **Malgoure, Jean**; et al., (81m:57005)
Hofmann, Karl Heinrich (with **Keimel, Klaus**) Sheaf-theoretical concepts in analysis: bundles and sheaves of Banach spaces, Banach $C(X)$ -modules. (81f:46085)
Jakovlev, A. V. Galois theory for sheaves of sets. (Russian) (81c:12037)
Keimel, Klaus See **Hofmann, Karl Heinrich**, (81f:46085)
Malgoure, Jean (with **Voisin, Christine**) ★Factorisation de Stein topologique; découpe. (French) [Topological Stein factorization; cutting] (81m:57005)
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Mulvey, Christopher J. Banach sheaves. (81h:46097)
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Pečaneć-Dražić, Jaroslav Presheaves over the sets which need not be well ordered, functional separation of their inductive limits and their representation by sections. (Russian and Czech summaries) (81a:54012a)
 Under an inductivity condition the stalks of the covering space of a presheaf are isomorphic (inductive and projective modifications of closures of presheaves). (Russian and Czech summaries) (81a:54012b)
 Functional separation of inductive limits and representation of presheaves by sections. II. Embedding of presheaves into presheaves of compact spaces. (Russian summary) (81c:54012)
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Pelletier, Joan Wick (with **Rosebrugh, Robert D.**) The category of Banach spaces in sheaves. (81c:46055)
Rade, Alexandru Gh. Quelques catégories cartésiennes remarquables. (81g:18014)
Reyes, Gonzalo E. Théorie des modèles et faisceaux. (81f:03050)
Rosebrugh, Robert D. See **Pelletier, Joan Wick**, (81c:46055)
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Verschoren, A. A note on strictly local kernel functors. (81d:18019)
Voisin, Christine See **Malgoure, Jean**, (81m:57005)
Volger, Higo Sheaf representations of algebras and transfer theorems for model-theoretic properties. (81m:03050)
Wraith, Gavin C. Locally equivalent toposes. (81h:18007)
Zaharov, V. K. Functional representation of the orthocompletion and the divisible hull of torsion-free Utumi modules. (Russian) (81f:13004)
Zarelua, A. V. Sheaf theory and zero-dimensional mappings. (81b:55003)

18F25 Algebraic K -theory and L -theory [See also 10Cxx, 12-XX, 13D15, 14Cxx, 16A54, 57R65, 57R67.]

- (Bass, H.) See **Roberts, Leslie G.**, 81a:18008
Burghel, Dan Some rational computations of the Waldhausen algebraic K -theory. (81e:18011)
Carlsson, Gunnar Desuspension in the symmetric L -groups. 81c:18016
Carter, David W. Localization in lower algebraic K -theory. 81c:18017
Charney, Ruth M. Homology stability for GL_n of a Dedekind domain. 81h:18010
Connell, E. H. (with **Wright, David Lee**) A Mayer-Vietoris sequence in nonlinear K -theory. 81e:18014
Dayton, Barry H. (with **Weibel, Charles A.**) K -theory of hyperplanes. 81e:18015
Evens, Leonard (with **Friedlander, Eric M.**) $K_*(\mathbb{Z}/p^2)$ and $K_*(\mathbb{Z}/p[e])$ for $p \geq 5$ and $r < 4$. 81b:18004
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Ischebeck, Friedrich Hauptidealringe mit nichttrivialer SK_1 -Gruppe. 81h:18011
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Roberts, Leslie G. $SK_1(R[X, Y]/(X^2 + Y^2 - 1))$: remarks on an example of Bass and Milnor. 81a:18008
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secondary classifications:

- Bloch, Spencer** Algebraic K -theory and crystalline cohomology. (81j:14011)
 Some formulas pertaining to the K -theory of commutative group-schemes. (81h:14007)
Carter, David W. Lower K -theory of nilpotent groups. (81m:20012)
Choo, Koo Guan Whitehead groups of semidirect products of free groups. II. (81c:20036)
Clauwens, F. J.-B. J. The K -theory of almost symmetric forms. (81f:57036)
Douglas, Ronald G. Extensions of C^* -algebras and algebraic topology. (81i:46094)
 (Dupont, Johan Louis) See **Algebraic topology**, (81b:55001)
Fack, Thierry (with **Maréchal, O.**) Application de la K -théorie algébrique aux C^* -algèbres. (81i:46093)
Grayson, Daniel R. Algebraic cycles and algebraic K -theory. (81m:14007)
Hausmann, Jean-Claude Algebraic K -theory and flat manifolds. (81f:57020)
Karoubi, Max K -théorie algébrique de certaines algèbres d'opérateurs. (81i:46095)
Kolster, Manfred Computations of Witt groups of finite groups. (81a:57033)
 (Madsen, Ib Henning) See **Algebraic topology**, (81b:55001)
Maréchal, O. See **Fack, Thierry**, (81i:46093)
Metzler, Wolfgang Two-dimensional complexes with torsion values not realizable by self-equivalences. (81b:55003)
Mislin, Guido (with **Varadarajan, K.**) The finiteness obstructions for nilpotent spaces in $D(\mathbb{Z})$. (81c:55011)
Oliver, Robert SK_1 of p -adic group rings. (81g:16035)
Oreochla, Ferruccio On the groups SK_0 and NK_0 of some affine surfaces. (Italian, English summary) (81k:14018)
Pedersen, Erik Kjaer (with **Ranicki, Andrew**) Projective surgery theory. (81i:57032)
Pirashvili, T. I. The nonabelian derived functors. (Russian, English summary) (81d:18023)
Ranicki, Andrew Localization in quadratic L -theory. (81f:57037)
 See also **Pedersen, Erik Kjaer**, (81i:57032)
Schochet, Claude Homogeneous extensions of C^* -algebras and K -theory. I. (81i:46096)
Soulé, Christophe K -théorie des anneaux d'entiers de corps de nombres et cohomologie étale. (81i:12016)
Steinberger, Mark On the equivalence of the two definitions of the algebraic K -theory of a topological space. (81d:55008)
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 (Wall, Charles T. C.) See **Metzler, Wolfgang**, (81b:55003)
Wilson, Stephen M. J. Generators by inflation. (81b:20011)
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 Algebraic topology ★Algebraic topology, Aarhus 1978. (81b:55001)
 Symposium:
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 Topology ★Algebraic topology, Aarhus 1978. (81b:55001)

18F30 Grothendieck groups [See also 13D15, 16A54.]

- Carlsson, Gunnar** On the Witt group of a 2-adic group ring. 81k:18012

secondary classifications:

- Grayson, Daniel R.** Grothendieck rings and Witt vectors. (81e:13014)
Kratzer, Ch. Opérations d'Adams et représentations de groupes. (81m:16031)
Rumeur, Hugette Théorème d'induction de Brauer et application au calcul des caractères modulaires. (81c:20004)

18F99 None of the above, but in this section

- Lawvere, F. William** Categorical dynamics. 81c:18019

secondary classifications:

- Milne, James S.** ★Étale cohomology. (81j:14002)

18Gxx Homological algebra [See also 55Uxx.]

18G05 Projectives and injectives [See also 13C10, 13C11, 16A50, 16A52.]

- Hill, Paul** Quotients of valued vector spaces. 81k:18013
Höppner, Michael (with **Lenzing, Helmut**) Projective diagrams over partially ordered sets are free. 81m:18012
Lenzing, Helmut See **Höppner, Michael**, 81m:18012
Ratcliffe, John G. Free and projective crossed modules. 81h:18012
 secondary classifications:

- Banaschewski, Bernhard** Injective Banach sheaves. (81j:46109)
Trotter, P. G. Projectives in some categories of semigroups. (81j:20101)

18G10 Resolutions; derived functors [See also 18E25.]

- Geoghegan, Ross** A note on the vanishing of \lim^1 . 81i:18015a
 Erratum: "A note on the vanishing of \lim^1 ". 81i:18015b
Pirashvili, T. I. The nonabelian derived functors. (Russian, English summary) 81d:18023
Wall, Charles T. C. Periodic projective resolutions. 81h:18013

secondary classifications:

- Chapman, G. R. Simplicial normalization in adjoint functor cohomology. (81i:18006)
 Eiright, Thomas J. (with Wallach, Nolan R.) Notes on homological algebra and representations of Lie algebras. (81i:17013)
 Najar, Rudolph M. Spectral sequences and relative cohomology. (81i:20063)
 Sheets, Ronald P. The synthetic derived functors of a functor. (81m:18013)
 Simis, Aron Free resolutions of certain triply generated ideals. (81b:13005)
 Wallach, Nolan R. See Eiright, Thomas J., (81i:17013)

18G15 Ext and Tor, generalizations, Künneth formula [See also 55U25.]

- Borovik, Ju. V. A matrix apparatus in homological algebra. (Russian) 81i:18020
 Paskorja, A. M. Normal Schreier extensions of semimodules. (Russian. English summary) 81f:18033

secondary classifications:

- Dela, G. The interchanging sequence between tensor, Tor and homology. (81m:13011)
 Golovin, V. D. The functors "ext" for sheaves and cosheaves. (Russian) (81h:32011)

18G20 Homological dimension [See also 13Dxx, 16A60, 16A62.]

secondary classifications:

- Hill, Paul Quotients of valued vector spaces. (81k:18013)
 Mitchell, Barry Some applications of module theory to functor categories. (81i:18010)
 Onufsky, Barbara L. Projective dimension of "nice" directed unions. (81d:16019)
 Pletch, Andrew Profinite duality groups. II. (81k:12028)

18G25 Relative homological algebra, projective classes

- Nakajima, Atsushi Cohomology for comodules. 81f:18034

18G30 Simplicial sets, simplicial objects (in a category) [See also 55U10.]

- Ratz Salguero, Roberto Relative subdivisions on presheaves and isomorphic simplicial homologies. (Spanish) 81k:18014

secondary classifications:

- Dwyer, W. G. Homotopy operations for simplicial commutative algebras. (81e:55027)

18G35 Chain complexes [See also 18E30, 55U15.]

secondary classifications:

- Helaja, L. G. On some chain operations. (Russian. Georgian and English summaries) (81c:55030)

18G40 Spectral sequences, hypercohomology [See also 55Txx.]

- Ratcliffe, John G. On the second transgression of the Lyndon-Hochschild-Serre spectral sequence. 81c:18021

secondary classifications:

- Najar, Rudolph M. Spectral sequences and relative cohomology. (81i:20063)

18G50 Nonabelian homological algebra

- Roberts, John E. Mathematical aspects of local cohomology. 81e:18017
 Sheets, Ronald P. The synthetic derived functors of a functor. 81m:18013

18G55 Nonabelian homotopical algebra

18G99 None of the above, but in this section

- Dunadivill, T. I. The cohomology of categories. (Russian. English summary) 81e:18018
 Dwyer, W. G. Twisted homological stability for general linear groups. 81b:18006

secondary classifications:

- Burge, Jean An algebraic proof of a theorem of J. Milnor. (81k:57013)
 Pletch, Andrew Profinite duality groups. I. (81k:12027)
 Roos, Jan-Erik Sur l'algèbre Ext de Yoneda d'un anneau local de Golod. (English summary) (81e:13006)
 Ulbrich, K.-H. An abstract version of the Hattori-Villamayor-Zelinsky sequences. (81c:13014)

20-XX GROUP THEORY AND GENERALIZATIONS

- (Čurkin, V. A.) See Kourouva notebook: unsolved problems in group theory. 81d:20001
 (Mazurov, V. D.) See Kourouva notebook: unsolved problems in group theory. 81d:20001
 (Merzljakov, Ju. I.) See Kourouva notebook: unsolved problems in group theory. 81d:20001

- Group theory ★Коуровская тетрадь (нерешенные вопросы теории групп). (Russian) [Kourouva notebook: unsolved problems in the theory of groups] 81d:20001
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- Group theory ★Коуровская тетрадь (нерешенные вопросы теории групп). (Russian) [Kourouva notebook: unsolved problems in the theory of groups] 81d:20001

20-01 Elementary exposition, textbooks

- Alperin, Jonathan L. Groups and symmetry. (See 80b:00007)
 Coxeter, H. S. M. (with Moser, William O. J.) ★Generators and relations for discrete groups. 81a:20001
 (Fallin, G. I.) See Kaluznin, L. A.; et al., 81m:20001
 Kaluznin, L. A. (with Suščanskii, V. I.) ★Преобразования и перестановки. (Russian) [Transformations and permutations] 81m:20001
 Madson Barbosa, Ruy ★Grupos e combinatória. (Portuguese) [Groups and combinatorics] 81a:20002
 Moser, William O. J. See Coxeter, H. S. M., 81a:20001
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 Thomas, A. D. (with Wood, G. V.) ★Group tables. 81d:20002
 Wood, G. V. See Thomas, A. D., 81d:20002

secondary classifications:

- Ferrero, Giovanni Didactic observations on divisibility. (Italian. English summary) (81j:20006)

20-02 Advanced exposition (research surveys, monographs, etc.)

- Černikov, S. M. ★Группы с заданными свойствами системы подгрупп. (Russian) [Groups with given properties of a system of subgroups] 81k:20001
 Cohen, Daniel E. ★Combinatorial group theory. A topological approach. 81b:20001
 Goldschmidt, David M. ★Lectures on character theory. 81f:20001
 Gorenstein, Daniel ★Finite groups. 81b:20002

secondary classifications:

- Aschbacher, Michael A survey of the classification program for finite simple groups of even characteristic. (81f:20022)
 Gorenstein, Daniel The classification of finite simple groups. (81f:20021)
 (Wall, Charles T. C.) See Problems: Homological group theory. (81f:00002)
 Problems:
 Homological group theory List of problems. (81f:00002)

20-03 Historical (must also be assigned at least one classification number from Section 01)

- Dieudonné, Jean Le développement historique de la notion de groupe. 81a:20003

secondary classifications:

- Gray, Jeremy J. Olinda Rodrigues' paper of 1840 on transformation groups. (81m:01031)
 Mac Lane, Saunders Origins of the cohomology of groups. (81j:01030)

20-04 Explicit machine computation and programs (not the theory of computation or programming)

- Furst, Merrick (with Hopcroft, John; Luks, Eugene M.) Polynomial-time algorithms for permutation groups. 81m:20002
 Hopcroft, John See Furst, Merrick; et al., 81m:20002
 Luks, Eugene M. See Furst, Merrick; et al., 81m:20002
 Sims, Charles C. Group-theoretic algorithms, a survey. 81g:20001

secondary classifications:

- Thomas, A. D. (with Wood, G. V.) ★Group tables. (81d:20002)
 Wood, G. V. See Thomas, A. D., (81d:20002)

20-06 Proceedings, conferences, etc.

- (Bairamov, R. A.) See Special questions of algebra and topology. 81m:20005
 (Bogomol'skaja, Z. V.) See Computations in algebra and combinatorial analysis. 81m:20003
 (Černikov, S. M.) See Groups defined by properties of a system of subgroups. 81d:20003
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 (Cooperstein, Bruce N.) See Conference: Santa Cruz, Finite Groups. 81m:20004
 (Dress, Andreas W. M.) See Proceedings: Conference on Crystallographic Groups. 81k:20002
 (Fujitara, Tsuyoshi) See Proceedings: Symposium on Semigroups. 81b:20003
 (Gamskrelidze, R. V.) See Algebra. Topology. Geometry. 81h:20001
 (Kaluznin, L. A.) See Computations in algebra and combinatorial analysis. 81m:20003
 (Lajpala, E. S.) See Semigroup varieties and semigroups of endomorphisms. 81b:20004
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 (Mason, Geoffrey) See Conference: Santa Cruz, Finite Groups. 81m:20004
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- (Stogni, A. O.) See Computations in algebra and combinatorial analysis, 81m:20003
- Abelian groups ★Symposia Mathematica. Vol. XXIII. 81a:20305
- Algebra ★Вычисления в алгебре и комбинаторике. (Russian) [Computations in algebra and combinatorial analysis] 81m:20003
- ★Современная алгебра. (Russian) [Modern algebra] 81i:20001
- ★Специальные вопросы алгебры и топологии. (Russian) [Special questions of algebra and topology] 81m:20005
- Algebra, Topology, Geometry ★Алгебра. Топология. Геометрия. Том 17. (Russian) [Algebra. Topology. Geometry. Vol. 17] 81h:20001
- Bielefeld ★Burnside groups. 81j:20002
- ★Proceedings of the Conference on Kristallographische Gruppen. Part I. 81k:20002
- Burnside groups ★Burnside groups. 81j:20002
- Combinatorial analysis ★Вычисления в алгебре и комбинаторике. (Russian) [Computations in algebra and combinatorial analysis] 81m:20003
- Computations in algebra and combinatorial analysis ★Вычисления в алгебре и комбинаторике. (Russian) [Computations in algebra and combinatorial analysis] 81m:20003
- Conference:
- Crystallographic Groups ★Proceedings of the Conference on Kristallographische Gruppen. Part I. 81k:20002
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- Endomorphisms ★Полугрупповые многообразия и полугруппы эндоморфизмов. (Russian) [Semigroup varieties and semigroups of endomorphisms] 81b:20004
- Finite groups ★The Santa Cruz Conference on Finite Groups. 81m:20004
- Geometry ★Алгебра. Топология. Геометрия. Том 17. (Russian) [Algebra. Topology. Geometry. Vol. 17] 81h:20001
- Groupoids ★Современная алгебра. (Russian) [Modern algebra] 81i:20001
- Groups defined by properties of a system of subgroups ★Группы, определяемые свойствами системы подгрупп. (Russian) [Groups defined by properties of a system of subgroups] 81d:20003
- INDAM Conference:
- Abelian Groups and their Relationship to the Theory of Modules ★Symposia Mathematica. Vol. XXIII. 81a:20005
- Itoji Naoki i Tehmiki ★Алгебра. Топология. Геометрия. Том 17. (Russian) [Algebra. Topology. Geometry. Vol. 17] 81h:20001
- Kobe ★Proceedings of the 3rd Symposium on Semigroups. 81b:20003
- Modern algebra ★Современная алгебра. (Russian) [Modern algebra] 81i:20001
- Module theory ★Symposia Mathematica. Vol. XXIII. 81a:20005
- New Orleans, La. ★Proceedings of the Conference on Semigroups in honor of Alfred H. Clifford. 81a:20004
- Proceedings:
- Conference on Crystallographic Groups ★Proceedings of the Conference on Kristallographische Gruppen. Part I. 81k:20002
- Conference on Semigroups in Honor of Alfred H. Clifford ★Proceedings of the Conference on Semigroups in honor of Alfred H. Clifford. 81a:20004
- Symposium on Semigroups ★Proceedings of the 3rd Symposium on Semigroups. 81b:20003
- Rome ★Symposia Mathematica. Vol. XXIII. 81a:20005
- Santa Cruz, Calif. ★The Santa Cruz Conference on Finite Groups. 81m:20004
- Semigroup varieties and semigroups of endomorphisms ★Полугрупповые многообразия и полугруппы эндоморфизмов. (Russian) [Semigroup varieties and semigroups of endomorphisms] 81b:20004
- Semigroups ★Proceedings of the Conference on Semigroups in honor of Alfred H. Clifford. 81a:20004
- ★Proceedings of the 3rd Symposium on Semigroups. 81b:20003
- Special questions of algebra and topology ★Специальные вопросы алгебры и топологии. (Russian) [Special questions of algebra and topology] 81m:20005
- Symposia Mathematica ★Symposia Mathematica. Vol. XXIII. 81a:20005
- Symposium:
- Semigroups ★Proceedings of the 3rd Symposium on Semigroups. 81b:20003
- Topology ★Алгебра. Топология. Геометрия. Том 17. (Russian) [Algebra. Topology. Geometry. Vol. 17] 81h:20001
- ★Специальные вопросы алгебры и топологии. (Russian) [Special questions of algebra and topology] 81m:20005
- Workshop:
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- secondary classifications:
- (Adjan, S. I.) See Word problems. (81f:03056)
- (Boone, William W.) See Word problems. (81f:03056)
- (Hall, T. E.) See Semigroups. (81i:20074)
- (Higman, Graham) See Word problems. (81f:03056)
- (Hochstetler, Hans-Jürgen) See Algebraische Modelle, Kategorien und Gruppoide. (81b:18001)
- (Jones, Peter R.) See Semigroups. (81i:20074)
- (Mathieu, R. M.) See Combinatorics, representation theory and statistical methods in groups. (81h:05003)
- (Narayana, T. V.) See Combinatorics, representation theory and statistical methods in groups. (81h:05003)
- (Preston, G. B.) See Semigroups. (81i:20074)
- (William, Jeffrey George) See Combinatorics, representation theory and statistical methods in groups. (81h:05003)

- (Young, Alfred) See Combinatorics, representation theory and statistical methods in groups. (81h:05003)
- Abstracts:
- Seminar on Universal Algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:00001)
- Algebraische Modelle, Kategorien und Gruppoide ★Algebraische Modelle, Kategorien und Gruppoide. (German) [Algebraic models, categories and groupoids] (81b:18001)
- Baku ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:00001)
- Categories ★Algebraische Modelle, Kategorien und Gruppoide. (German) [Algebraic models, categories and groupoids] (81b:18001)
- Clayton ★Semigroups. (81i:20074)
- Combinatorics, representation theory and statistical methods in groups ★Combinatorics, representation theory and statistical methods in groups. (81h:05003)
- Conference:
- Decision Problems in Algebra ★Word problems. II. (81f:03056)
- Semigroups ★Semigroups. (81i:20074)
- Decision problems in algebra ★Word problems. II. (81f:03056)
- Groupoids ★Algebraische Modelle, Kategorien und Gruppoide. (German) [Algebraic models, categories and groupoids] (81b:18001)
- Groups ★Combinatorics, representation theory and statistical methods in groups. (81h:05003)
- Oxford ★Word problems. II. (81f:03056)
- Representation theory ★Combinatorics, representation theory and statistical methods in groups. (81h:05003)
- Semigroups ★Semigroups. (81i:20074)
- Seminar:
- Universal Algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:00001)
- Universal algebra ★Материалы Семинара "Универсальная Алгебра". (Russian) [Abstracts of the Seminar on Universal Algebra] (81j:00001)
- Word problems ★Word problems. II. (81f:03056)

20Axx Foundations

20A05 Axiomatics and elementary properties

- Agrawal, R. C. A study of postulates for self-inverse groups. 81c:20001
- Häselbarth, W. (with Ruch, Ernst; Klein, D. J.; Seligman, Thomas H.) Bilateral classes. 81j:20003
- Klein, D. J. See Häselbarth, W.; et al. 81j:20003
- Lehmann, Ingmar Quasigruppen—Identitäten und spezielle abelsche Gruppen. (Russian, English and French summaries) 81c:20002
- Ruch, Ernst See Häselbarth, W.; et al. 81j:20003
- Seligman, Thomas H. See Häselbarth, W.; et al. 81j:20003

secondary classifications:

- Nicholson, W. K. (with Yaqub, Adil) A commutativity theorem for rings and groups. (81c:16045)
- Yaqub, Adil See Nicholson, W. K. (81c:16045)

20A10 Metamathematical considerations {For word problems, see 20F10.}

20A15 Applications of logic to group theory

- Belegardek, O. V. Algebraic equivalents of solvability of group-theoretic algorithmic problems. (Russian) 81b:20005
- Eklöf, Paul C. ★Set-theoretic methods in homological algebra and abelian groups. 81j:20004
- Ellentuck, Erik Sylow subgroups of a regressive group. 81b:20006

secondary classifications:

- Cherlin, Gregory Groups of small Morley rank. (81h:03072)
- Felgner, Ulrich The model theory of FC-groups. (81m:03045)
- Jambu-Giraudet, Michèle Théorie des modèles de groupes d'automorphismes d'ensembles totalement ordonnés 2-homogènes. (English summary) (81f:03046)
- Romanovskii, N. S. The elementary theory of an almost polycyclic group. (Russian) (81d:03035)
- Suhorutchenko, I. I. Programmably categorical abelian p -groups. I, II. (Russian) (81f:03048)
- Taichin, M. A. Program theories of periodic abelian groups. (Russian) (81j:03054)

20A99 None of the above, but in this section

secondary classifications:

- McMullen, J. R. An algebraic theory of hypergroups. (81f:20105)

20Bxx Permutation groups

20B05 General theory for finite groups

- Conger, Marston D. E. Generators for alternating and symmetric groups. 81b:20002

Fill, James A. (with Izenman, Alan J.) The structure of RI-invariant twelve-tone rows. 81j:20002

Izenman, Alan J. See Fill, James A., 81j:20002

Jiang, Chun Xuan (with Wang, Pei Zhuang) Graphical procedure for the symmetrical analysis of stable groups. 81i:20002

Larembik, F. G. Some infinite series of maximal subgroups of alternating groups. (Russian) 81a:20006

Lentin, André Sur certains ensembles constitués dans \mathbb{E}_{2n} par $2n-1$ involutions sans point fixe et discordantes. Groupe d'automorphismes. Unité du genre. (English summary) 81d:20004

Praeger, Cheryl E. (with Saxl, Jan) On fixed points in paired suborbits. 81f:20002

Saxl, Jan See Praeger, Cheryl E., 81f:20002

Sehgal, Surinder K. A note on a problem of S. Ulam and equidistributed permutation groups. 81e:20001

Wang, Pei Zhuang See Jiang, Chun Xuan, 81i:20002

secondary classifications:

Bocara, G. Nombre de représentations d'une permutation comme produit de deux cycles de longueurs données. (English summary) (81d:05004)

Bovey, J. D. An approximate probability distribution for the order of elements of the symmetric group. (81i:10066)

The probability that some power of a permutation has small degree. (81i:10067)

Deza, M. On permutation cliques. (81m:05006)

(Falin, G. I.) See Kuzhina, L. A.; et al., (81m:20001)

Gabovik, E. Ja. (with Melamed, I. I.) On constant discrete programming problems. (81h:90096)

Kuzhina, L. A. (with Suščanskii, V. I.) ★Преобразования и перестановки. (Russian) [Transformations and permutations] (81m:20001)

Kasabov, N. K. Generation of a symmetric semigroup and group by generating sets with redundancy. (Bulgarian. Russian and English summaries) (81h:20079)

Klyota, Masao An inequality for finite permutation groups. (81f:20009)

Kreweras, Germalin Sur les produits de permutations unimodales. (English summary) (81h:05002)

Ljubić, M. Ju. A logarithmic property of the degree of a finite group. (Russian) (81j:20042)

Melamed, I. I. See Gabovik, E. Ja., (81h:90096)

Moser, William O. J. (with Newborn, Monroe M.) Placing counters to illustrate Burnside's lemma. (81f:20031)

Neumann, Peter M. A lemma that is not Burnside's. (81g:01012)

Newborn, Monroe M. See Moser, William O. J., (81f:20031)

Sims, Charles C. Some group-theoretic algorithms. (81h:20026)

Suščanskii, V. I. See Kuzhina, L. A., (81m:20001)

Walkup, David W. How many ways can a permutation be factored into two n -cycles? (81d:05005)

20B07 General theory for infinite groups

Prakash, J. S. See Ranganathan, N. R., 81f:20003

Ranganathan, N. R. (with Prakash, J. S.) Two algorithms for symmetric groups. 81f:20003

20B10 Characterization theorems

Atkinson, M. D. Some permutation groups of degree $p = 6q + 1$. 81c:20003

Fomin, A. N. Permutational characterization of some Mathieu groups. (Russian) 81c:20003

Harada, Koichiro (with Yamaki, Hiroyoshi) Finite groups having 2-local subgroups $E_{16}L_2(2)$. II. 81a:20007

Perkel, Manley A characterization of $PSL(2, 31)$ and its geometry. 81h:20003

Rosse, Christian Sur les groupes transitifs dont les involutions fixent 0 ou 2 points. 81f:20005

Yamaki, Hiroyoshi See Harada, Koichiro, 81a:20007

20B15 Uniprimitive groups

Henstridge, J. D. (with Praeger, Cheryl E.) Note on primitive permutation groups and a Diophantine equation. 81k:20003

Praeger, Cheryl E. On elements of prime order in primitive permutation groups. 81a:20008

See also Henstridge, J. D., 81k:20003

20B20 Multiply transitive finite groups

Mielants, W. Remark on the generalized graph extension theorem. 81k:20004

Mortimer, Brian The modular permutation representations of the known doubly transitive groups. 81f:20004

Praeger, Cheryl E. (with Saxl, Jan) On the orders of primitive permutation groups. 81g:20003

Saxl, Jan See Praeger, Cheryl E., 81g:20003

Thompson, J. G. Remarks on finite groups. 81j:20006

Yoshizawa, Mitsuo On multiply transitive permutation groups. 81j:20007

On $2p$ -fold transitive permutation groups. II. 81h:20007

secondary classifications:

Cameron, Peter J. Multiple transitivity in graphs. (81i:05111)

Fomin, A. N. Permutational characterization of some Mathieu groups. (Russian) (81i:20003)

Kantor, William M. ★ Classical groups from a nonclassical viewpoint. (81h:20056)

Liebeck, Martin W. Lie algebras, 2-graphs and permutation groups. (81f:05095)

Yoshizawa, Mitsuo On some periodic 4-transitive permutation groups. (81j:20009)

20B22 Multiply transitive infinite groups

Wefelscheid, Heinrich ZT-subgroups of sharply 3-transitive groups. 81j:20006

Yoshizawa, Mitsuo On some periodic 4-transitive permutation groups. 81j:20009

secondary classifications:

Bardwell, Maureen A. The o -primitive components of a regular ordered permutation group. (81f:06021)

20B25 Finite automorphism groups of algebraic, geometric, or combinatorial structures [See also 05Bxx, 12F10, 20G40, 20H30, 51-XX.]

(Berg, Alban) See Fox, Colla D., 81b:20008

Bergstrand, Deborah (with Favor, Fred; Grace, Thomas; Leon, Jeffrey S.; Pless, Vera) Verification of the isomorphism of two groups. 81d:20005

Betten, Dieter Geometrische Permutationsgruppen. 81j:20010

Chawathe, P. D. A geometry associated with the Steiner system $S(24, 8, 5)$. 81e:20002

Delaney, Matthew S. Groups of combinatorial automorphisms of space group orbits. II. 81h:20005

Đoković, Dragomir Ž. (with Malzan, Jerry) Products of reflections in $U(p, q)$. 81g:20004

Favor, Fred See Bergstrand, Deborah; et al., 81d:20005

Fox, Colla D. Alban Berg the mathematician. 81b:20004

Grace, Thomas See Bergstrand, Deborah; et al., 81d:20005

Ito, Noboru Hadamard matrices with "doubly transitive" automorphism groups. 81m:20006

Korchmáros, Gábor A combinatorial characterization of the dihedral subgroups of order $2(p^r + 1)$ of $PGL(2, p^r)$. 81m:20007

Leon, Jeffrey S. See Bergstrand, Deborah; et al., 81d:20005

Malzan, Jerry See Đoković, Dragomir Ž., 81g:20004

Pless, Vera See Bergstrand, Deborah; et al., 81d:20005

Schnabel, Rudolf Über die Darstellung von endlichen Gruppen als Zentralisatoren in symmetrischen Gruppen. 81g:20005

Tanaka, Genjiro On the group of automorphisms of cyclic automata. 81k:20006

secondary classifications:

Adams, M. E. (with Babai, László; Sichler, J.) Automorphism groups of finite distributive lattices with a given sublattice of fixed points. (81m:06024)

Alspach, Brian Graphs and permutation groups whose transitive constituents have prime degree. (81j:05065)

Ambrosimov, A. S. (with Šarov, N. N.) Some asymptotic expansions for the number of functions with a nontrivial inertia group. (Russian) (81j:05008)

Babai, László (with Frankl, Peter) Isomorphisms of Cayley graphs. I. (81g:05066a)

(with Frankl, Peter) Isomorphisms of Cayley graphs. II. (81g:05066b)

See also Adams, M. E.; et al., (81m:06024)

Coxeter, H. S. M. (with Frucht W., Roberto) A new trivalent symmetrical graph with 110 vertices. (81c:05047)

Dress, Andreas W. M. Some suggestions concerning a geometric definition of the symmetry group of nonrigid molecules. (81c:81078)

Egorov, V. N. (with Markov, A. I.) Adam's conjecture for graphs with circulant adjacency matrices. (Russian) (81b:05051)

Ewald, Günter Über polytopale Sphären mit Symmetriegruppe. (81h:52003)

Feinberg, V. Z. See Nosova, E. G., (81d:54033)

Földes, Stéphane (with Sabidussi, G.) On semigroups of graph endomorphisms. (81e:05080)

Symmetries of directed graphs and the Chinese remainder theorem. (81h:05075)

Frankl, Peter See Babai, László, (81g:05066a) and Babai, László, (81g:05066b)

Frucht W., Roberto See Coxeter, H. S. M., (81c:05047)

Godsil, C. D. Neighbourhoods of transitive graphs and GRRs. (81e:05080)

Hering, Christoph On the structure of finite collineation groups of projective planes. (81c:51008)

James, David G. On the automorphisms of $\det(x_p)$. (81m:10044)

Kerber, Adalbert Counting isomers and such. (81c:81000)

Kornienko, N. M. (with Metel'skii, N. N.) Normalizer of a representation of a symmetric group and a quadratic choice problem. (Russian. English summary) (81b:05009)

Lawton, Richard A note on a theorem of Heineken and Liebeck. (81c:20024)

Markov, A. I. See Egorov, V. N., (81b:05051)

Metel'skii, N. N. See Kornienko, N. M., (81b:05009)

Nataazon, S. M. Lobačevskii geometry and automorphisms of complex M -curves. (Russian) (81m:30042)

Nosova, E. G. (with Feinberg, V. Z.) T -complete ultrametric spaces and their auto-isometry groups. (Russian. English summary) (81d:54033)

Perkel, Manley Bounding the valency of polygonal graphs with odd girth. (81m:05078)

A characterization of J_1 in terms of its geometry. (81j:05066)

Sabidussi, G. See Földes, Stéphane, (81e:05080)

Šarov, N. N. See Ambrosimov, A. S., (81j:05008)

Shee, S. C. See Teh, H. H., (81f:05096)

Sichler, J. See Adams, M. E.; et al., (81m:06024)

Szabó, László (with Szendrei, Ágnes) Almost all algebras with triply transitive automorphism groups are functionally complete. (81g:08006a)

Szendrei, Ágnes See Szabó, László, (81g:08006a)

Teh, H. H. (with Shee, S. C.) Colour graphs and inverse semigroups. (81f:05096)

Weiss, Richard M. Groups with a (B, N) -pair and locally transitive graphs. (81j:05067)

20B27 Infinite automorphism groups [See also 12F10.]

Picard, Sophie Le groupe \mathbb{S} de transformations bornées de \mathbb{Z} . (English summary) 81e:20003

secondary classifications:

- Alspach, Brian Graphs and permutation groups whose transitive constituents have prime degree. (81j:05065)
- Kaiser, H. K. (with Márki, L.) Remarks on a paper of L. Szabó and Á. Szendrei: "Almost all algebras with triply transitive automorphism groups are functionally complete" [Acta Sci. Math. (Szeged) 41 (1979), no. 3-4, 391-402; MR 81g:08006a]. (81g:08006b)
- Márki, L. See Kaiser, H. K., (81g:08006b)
- Montgomery, Susan Automorphism groups of rings with no nilpotent elements. (81j:16040)
- (Szabó, László) See Kaiser, H. K.; et al., (81g:08006b)
- (Szendrei, Ágnes) See Kaiser, H. K.; et al., (81g:08006b)
- Wright, David Lee Abelian subgroups of $\text{Aut}_k(K[X, Y])$ and applications to actions on the affine plane. (81k:14040)

20B30 Symmetric groups, general

20B35 Subgroups of symmetric groups

- Dmitruk, Ju. V. (with Suškins'kii, V. I.) Homogeneous subgroups of Sylow p -subgroups of symmetric groups and their generalizations. (Russian) 81k:20007
- Droste, M. Über k -homogene unendliche Permutationsgruppen. 81k:20008
- Giorgetta, Donato Embeddings in groups of permutations with supports of bounded cardinality. 81j:20011
- Pálfi, P. P. On regular pronormal subgroups of symmetric groups. 81j:20012
- Suškins'kii, V. I. Periodic p -groups of permutations and the unrestricted Burnside problem. (Russian) 81k:20009
- See also Dmitruk, Ju. V., 81k:20007
- Wink, Barbara Representation of the fundamental Sylow p -subgroups of permutation groups by the algebras defined on the sequences. (Polish summary) 81m:20008

secondary classifications:

- Furst, Merrick (with Hopcroft, John; Luks, Eugene M.) Polynomial-time algorithms for permutation groups. (81m:20002)
- Hopcroft, John See Furst, Merrick; et al., (81m:20002)
- Louck, J. D. Relationship between the feasible group and the point group of a rigid molecule. (81c:81083)
- Luks, Eugene M. See Furst, Merrick; et al., (81m:20002)
- Mullineux, G. A characterization of A_n by centralizers of 3-cycles. (81b:20022)

20B99 None of the above, but in this section

- Confaloni, Yvona Polynomials over the permutation group of three elements. 81m:20009
- Kowal, Gerhard Polynomfunktionen auf 3-Gruppen. 81a:20009

secondary classifications:

- Judd, B. R. The permutation group in atomic structure. (81c:81074)
- Pinus, A. G. Eliminability of the quantifiers Q_0 and Q_1 on symmetric groups. (Russian) (81d:03039)
- Rota, Gian-Carlo (with Sagan, Bruce) Congruences derived from group action. (81g:05018)
- Sagan, Bruce See Rota, Gian-Carlo, (81g:05018)
- Wink, Barbara On symmetry groups of algebraic operations. (Polish. English summary) (81m:08008)

20Cxx Representation theory of groups

secondary classifications:

- Drozd, Ju. A. (with Kirichenko, V. V.) ★Конечномерные алгебры. (Russian) [Finite-dimensional algebras] (81j:16001)
- Kirichenko, V. V. See Drozd, Ju. A., (81j:16001)
- (Koorwinder, Tom H.) See Representations of locally compact groups with applications, (81k:22001)
- Naimark, M. A. (with Stern, A.) ★Théorie des représentations des groupes. (French) [Theory of group representations] (81b:22001)
- (Sosikskii, A.) See Naimark, M. A.; et al., (81b:22001)
- Stern, A. See Naimark, M. A., (81b:22001)
- Amsterdam ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Colloquium:
 Representations of Locally Compact Groups with Applications ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Locally compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Representations of locally compact groups with applications ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

20C05 Group rings of finite groups and their modules [See also 16A26.]

- Cho, I. See Kwon, T.; et al., 81m:20010
- Cliff, Gerald H. On the degree of an indecomposable representation of a finite group. 81c:20004
- Hales, Alfred W. (with Passi, I. B. S.) The second augmentation quotient of an integral

group ring. 81a:20010

- Karol, John K. A note on the subclass algebra. 81c:20005
- Koshitani, Shigeo A note on the radical of the centre of a group algebra. 81h:20004
- Kwon, T. (with Lee, K.; Cho, I.; Park, Seung Ahn) On generalized Heisenberg groups. 81m:20010
- Lee, K. See Kwon, T.; et al., 81m:20010
- Levy, Lawrence S. Modules over the cyclic group of prime order. 81a:20011
- Magura, Bruce A. Whitehead groups of some hypercyclic groups. 81g:20006
- Makaskis, Aristidis Sur l'isomorphie d'algèbres de groupes sur un champ modulaire. 81b:20009
- Miah, Sirajul Haque On group algebras of groups of order q^2p^2 . 81c:20006
- Park, Seung Ahn See Kwon, T.; et al., 81m:20010
- Passi, I. B. S. See Hales, Alfred W., 81a:20010
- Ritter, Jürgen (with Sehgal, Sudarshan) Group rings of metabelian groups. 81f:20005
- Rumeur, Hugues Théorème d'induction de Brauer et application au calcul des caractères modulaires. 81c:20004
- Saksonov, A. I. The ring of classes and the ring of characters of a finite group. (Russian) 81b:20004
- Schwarz, Wolfgang Die Struktur modularer Gruppenringe endlicher Gruppen der p -Länge 1. 81a:20012
- Sehgal, Sudarshan See Ritter, Jürgen, 81f:20005
- Sekiguchi, Katsusuke Units in integral group rings. 81b:20005
- On the units of integral group rings. 81k:20010
- Tsushima, Yukio Some notes on the radical of a finite group ring. II. 81b:20010
- Valenza, Robert J. Dimension subgroups of semidirect products. 81j:20013
- Willems, Wolfgang On the projectives of a group algebra. 81g:20007
- Wilson, Stephen M. J. Generators by inflation. 81b:20011

secondary classifications:

- Almkvist, Gert (with Fossum, Robert) Decomposition of exterior and symmetric power of indecomposable $\mathbb{Z}/p\mathbb{Z}$ -modules in characteristic p and relations to invariants. (81b:14024)
- Bayar, Ergün Youngsche Quadrupel und primitive Idempotente symmetrischer Gruppen. (Turkish summary) (81c:20015)
- Fossum, Robert See Almkvist, Gert, (81b:14024)
- Greco, Silvio Seminormality and quasnormality of group rings. (81j:13009)
- Handelman, David Algèbres simples de groupes à gauche. (81f:16017)
- Kataoka, Toshitaka Some type of ideals of group rings and its applications to algebraic number fields. (81c:12011)
- Lebedev, A. N. Intersection of the ideals of a group ring. (Russian. English summary) (81j:16014)
- Opolka, Hans The twisted group algebra of a finite nilpotent group over a number field. (81j:16015)
- Roggenkamp, Klaus W. Zur Einheitengruppe der ganzzahligen Gruppenringe metazyklischer Frobeniusgruppen. (81j:16016)
- Skula, Ladislav On certain ideals of the group ring $\mathbb{Z}[G]$. (81f:12007)

20C07 Group rings of infinite groups and their modules [See also 16A27.]

- Berger, Thomas R. Hall-Higman type theorems. VII. 81g:20008c
- Hall-Higman type theorems. V. 81g:20008a
- Hall-Higman type theorems. VI. 81g:20008b
- Bovdi, A. A. Construction of a multiplicative group of a group algebra with finiteness conditions. (Russian) 81j:20014
- Farkas, Daniel R. (with Snider, Robert L.) Induced representations of polycyclic groups. 81d:20006
- Goursaud, Jean-Marie (with Valette, Jacques) Sur les anneaux de groupe héréditaires. 81m:20011
- Grünenfelder, L. (with Parmenter, M. M.) Isomorphic group rings with nonisomorphic coefficient rings. 81c:20007
- Harper, D. L. Primitivity in representations of polycyclic groups. 81g:20009
- Molloy, T. Z. See Navev, N. A., 81c:20008
- Navev, N. A. (with Molloy, T. Z.) Invariants of the Ulm-Kaplansky group of normal units of the center of the group ring of the FC- p -group over a commutative ring of characteristic p . (Russian) 81c:20008
- Okniński, Jan Spectrally finite and semilocal group rings. 81d:20007
- O'Meara, K. C. Quotient rings of symmetric and universal group algebras. 81d:20008
- Parmenter, M. M. See Grünenfelder, L., 81c:20007
- Plotkin, B. I. Varieties of representations of groups and varieties of associative algebras. (Russian) 81f:20006
- Locally finite and locally bounded varieties of pair-representations of groups. (Russian) 81f:20007
- Smith, P. F. Localization in non-Noetherian group rings. 81b:20005
- More on the AR property and chain conditions in group rings. 81b:20006
- Snider, Robert L. Representation theory of polycyclic groups. 81k:20011
- See also Farkas, Daniel R., 81d:20006
- Valette, Jacques See Goursaud, Jean-Marie, 81m:20011
- Vovsi, S. M. Locally finite varieties of representations of groups. (Russian) 81f:20008
- Wehrfritz, Bertram A. F. Invariant maximal ideals of commutative rings. 81j:20015
- Finely generated modules over polycyclic groups. 81c:20009

secondary classifications:

- Bergman, George M. Historical addendum to: "Conjugates and n th roots in Hahn-Laurent group rings" [Bull. Malaysian Math. Soc. (2) 1 (1978), 29-41; MR 80a:16003]. (81d:16016)
- Cliff, Gerald H. Zero divisors and idempotents in group rings. (81k:16011)
- Groenewald, N. J. Strongly prime group rings. (81d:16014)
- Grzegorek, A. A proof of Ph. Hall's theorem on dimension subgroups. (81f:20043)
- Passman, Donald S. ★The algebraic structure of group rings. (81d:16001)

The Jacobson radical of a group ring of a locally solvable group. (81j:16017a)
Corrigendum: "The Jacobson radical of a group ring of a locally solvable group". (81j:16017b)

Roggenkamp, Klaus W. Group rings of metabelian groups and extension categories. (81j:16019)
Weiss, A. Idempotents in group rings. (81h:16024)

20C10 Integral representations of finite groups

Allen, Paul J. (with Hobby, C.) A characterization of units in $\mathbb{Z}[A_4]$. 81k:20012
Carter, David W. Lower K -theory of nilpotent groups. 81m:20012
Hobby, C. See Allen, Paul J., 81k:20012
Miyata, Takehiko A normal integral basis theorem for dihedral groups. 81i:20007
Plesken, Wilhelm (with Pohst, Michael) On maximal finite irreducible subgroups of $GL(n, \mathbb{Z})$. III. The nine-dimensional case. 81b:20012a
(with Pohst, Michael) On maximal finite irreducible subgroups of $GL(n, \mathbb{Z})$. IV. Remarks on even dimensions with applications to $n=8$. 81b:20012b
(with Pohst, Michael) On maximal finite irreducible subgroups of $GL(n, \mathbb{Z})$. V. The eight-dimensional case and a complete description of dimensions less than ten. 81b:20012c
Pohst, Michael See Plesken, Wilhelm, 81b:20012a; Plesken, Wilhelm, 81b:20012b and Plesken, Wilhelm, 81b:20012c
Roggenkamp, Klaus W. Diagrammatic methods in integral representation theory. 81g:20010
Rud'ko, V. P. Algebras of integral p -adic representations of finite groups. (Russian. English summary) 81h:20006

secondary classifications:

Goldschmidt, David M. ★Lectures on character theory. (81f:20001)
Jarratt, J. D. The decomposition of crystal families. (81i:20057)
Kint, Franz Absolut stetige Masse auf lokalkompakten Halbgruppen. (English summary) (81g:43003)
Reiner, Irving Zeta functions of integral representations. (81h:12018)
Taylor, Martin J. The locally free classgroup of the symmetric group. (81j:12005)

20C11 p -adic representations of finite groups

Roggenkamp, Klaus W. ★Integral representations and structure of finite group rings. 81e:20010
Shoji, Toshiaki On the Springer representations of the Weyl groups of classical algebraic groups. 81h:20007a
Correction to: "On the Springer representations of the Weyl groups of classical algebraic groups". 81h:20007b

secondary classifications:

Rud'ko, V. P. Algebras of integral p -adic representations of finite groups. (Russian. English summary) (81h:20006)

20C12 Integral representations of infinite groups

20C15 Ordinary representations and characters

Alvis, Dean The duality operation in the character ring of a finite Chevalley group. 81e:20012
Assion, Joachim Eine charaktertheoretische Kennzeichnung von A_4 . 81g:20011
Bayar, Ergün Über die Konstruktion irreduzibler Darstellungen einer endlichen Gruppe. (Turkish summary) 81h:20008
Camina, Alan R. (with Herzog, Marcel) Character tables determine abelian Sylow 2-subgroups. 81g:20012
Carter, Roger William ★Some aspects of the representation theory of finite groups of Lie type. 81g:20013
Chén, Miao Sheng Note on permutation representations of finite groups. 81e:20005
Curtis, Charles W. Representations of finite groups of Lie type. 81a:20013
Truncation and duality in the character ring of a finite group of Lie type. 81e:20011
Dumhus, Ture Complex conjugation of group representations by inner automorphisms. 81g:20014
tom Dieck, Tammo Idempotent elements in the Burnside ring. 81g:20015
Ferguson, Pamela A. On finite complex linear groups of degree $(q-1)/2$. 81e:20013
Frane, J. Sutherland Generalized Hook graphs and degree formulas for $O_n(2)$. 81k:20014

Degree formulas for the orthogonal groups over $GF(2)$. 81k:20013
Gluck, David A characterization of generalized permutation characters. 81j:20016
Gov, R. Real-valued and 2-rational group characters. 81a:20014
Properties of the characters of groups of odd order with respect to a set of primes. 81g:20016
Gündüzalp, Yavuz Über induzierte Darstellungen und Doppelmodulzerlegungen von Gruppen. (Turkish summary) 81e:20014
Herzog, Marcel See Camina, Alan R., 81g:20012
Howlett, Robert B. (with Kilmoyer, Robert W.) Principal series representations of finite groups with split BN pairs. 81d:20009
(with Lehrer, G. I.) Induced cuspidal representations and generalised Hecke rings. 81j:20017
Jackowski, Stefan (with Żukowski, Tomasz) P -free linear representations of P -solvable finite groups. 81g:20017
Kerber, Adalbert (with Wagner, Bernd) Gleichungen in endlichen Gruppen. 81k:20015
Kilmoyer, Robert W. See Howlett, Robert B., 81d:20009
Kiyota, Masao An inequality for finite permutation groups. 81f:20009
Laska, Michael A note on finite linear groups. 81k:20016

Lehrer, G. I. See Howlett, Robert B., 81j:20017

Levits, E. M. On torsion-free groups whose irreducible representations over some field are all finite-dimensional. (See 80m:00006)
Irreducible representations of polycyclic groups over an absolute algebraic field of prime characteristic. (See 80m:00006)

Liebler, Robert A. (with Yellen, Jay E.) In search of nonsolvable groups of central type. 81g:20018

Lipman, Marc J. The linear index of a group representation. 81h:20009
McKay, John Cartan matrices, finite groups of quaternions, and Kleinian singularities. 81j:20018

van der Meer, H. A. Induced representations of finite groups. (See 81k:22001)
Merris, Russell Applications of spherical functions in multilinear algebra. 81f:20010

Rakvišvili, G. G. Generalization of the Artin theorem for semisimple algebras and inductive theorems for orders and crossed group rings. (Russian. Georgian and English summaries) 81j:20019

Rusin, David J. Representations of metabelian groups. 81j:20020

Shinoda, Ken-ichi The characters of Weil representations associated to finite fields. 81k:20017

Shoji, Toshiaki On the Springer representations of Chevalley groups of type F_4 . 81b:20013

Spiegel, Eugene (with Trojan, Allan) On the Schur index and the structure of finite groups. 81m:20013

Stanley, Richard P. Invariants of finite groups and their applications to combinatorics. 81a:20015

Sarowski, David B. Degrees of irreducible characters of (B, N) -pairs of types E_6 and E_7 . 81g:20019

Trojan, Allan See Spiegel, Eugene, 81m:20013

Wagner, Bernd See Kerber, Adalbert, 81k:20015

Wolf, Thomas R. Character correspondences induced by subgroups of operator groups. 81h:20010

Yellen, Jay E. See Liebler, Robert A., 81g:20018

Žmud', E. M. Finite groups having an irreducible complex character with a class of zeros. (Russian) 81g:20020

Żukowski, Tomasz See Jackowski, Stefan, 81g:20017

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Arad, Zvi (with Ferguson, Pamela A.) On finite groups containing three CC-subgroups. (81f:20026)

Brauer, Richard ★Theory of group characters. (81f:20012)

Dias da Silva, J. A. On the Schur inequality. (81e:15009)

Ferguson, Pamela A. See Arad, Zvi, (81f:20026)

Goldschmidt, David M. ★Lectures on character theory. (81f:20001)

Guralnick, Robert M. On a result of Schur. (81a:20042)

Iwanski, Shiro On finite groups with exactly two real conjugate classes. (81g:20051)

Karol, John K. A note on the subclass algebra. (81e:20005)

Krop, L. E. Some applications of characters to varieties of representations of groups. (Russian) (81e:20017)

Molina, Richard Anthony Splitting fields and group characters. (81h:12011)

(Nagata, Masayoshi) See Brauer, Richard, (81f:20012)

Plonka, Ernest Remarks on characters of discrete nilpotent groups. (81a:22006)

(Weil, André) See Zink, Ernst-Wilhelm, (81e:12028)

Zink, Ernst-Wilhelm Ergänzungen: "Exercices dyadiques" [Invent. Math. 27 (1974), 1-22; MR 52 #350] von André Weil. (81e:12028)

20C20 Modular representations and characters

Alex, Leo J. (with Morrow, Dean C.) Simple groups with a Sylow normalizer of order 3p. 81a:20016

Alperin, Jonathan L. (with Burry, David W.) Block theory with modules. 81k:20018

Ballard, John W. Projective modules for finite Chevalley groups. 81d:20010

Bessenrodt, Christine On blocks of finite lattice type. 81f:20011

Brauer, Richard ★Theory of group characters. 81f:20012

Broué, Michel (with Puig, Lluís) A Frobenius theorem for blocks. 81d:20011

(with Puig, Lluís) Characters and local structure in G -algebras. 81j:20021

Burry, David W. See Alperin, Jonathan L., 81k:20018

Chastkofsky, Leonard (with Feit, Walter) On the projective characters in characteristic 2 of the groups $SL_2(2^n)$ and $SU_2(2^n)$. 81h:20011

Chilling, David (with Herzog, Marcel) Defect groups, trivial intersections and character tables. 81g:20021

Feit, Walter See Chastkofsky, Leonard, 81h:20011

Fong, Paul (with Srinivasan, Bhama) Blocks with cyclic defect groups in $GL(n, q)$. 81k:20019

Fujii, Mitsuo On determinants of Cartan matrices of p -blocks. 81m:20014

Green, J. A. On a theorem of H. Sawada. 81h:20012

Herzog, Marcel See Chilling, David, 81g:20021

Humphreys, James E. Deligne-Lusztig characters and principal indecomposable modules. 81g:20022

Knörr, Reinhard On the vertices of irreducible modules. 81f:20013

Kühnhammer, Burkhard On 2-blocks with wreathed defect groups. 81i:20008

Landrock, Peter (with Michler, Gerhard O.) Principal 2-blocks of the simple groups of Ree type. 81h:20013

Michler, Gerhard O. See Landrock, Peter, 81h:20013

Morrow, Dean C. See Alex, Leo J., 81a:20016

(Nagata, Masayoshi) See Brauer, Richard, 81f:20012

Okuyama, Tetsuro (with Wajima, Masayuki) Irreducible characters of p -solvable groups. 81g:20023

Some remarks on p -blocks of finite groups. 81m:20015

Olson, Jörn B. Lower defect groups. 81g:20024

Puig, Lluís See Broué, Michel, 81d:20011 and Broué, Michel, 81j:20021

- Schmid, Peter Twisted group algebras and Clifford extensions. 81h:20014
 Srinivasan, Bhama See Fong, Paul, 81k:20019
 Wajima, Masayuki See Okayama, Tetsuro, 81g:20023

secondary classifications:

- Alperin, Jonathan L. Diagrams for modules. (81h:16047)
 Beattie, Margaret The Brauer group of central separable G -Azumaya algebras. (81h:16010)
 Burkhardt, R. Über die Zerlegungszahlen der unitären Gruppen $PSU(3, 2^f)$. (81a:20055)
 Gow, R. Properties of the characters of groups of odd order with respect to a set of primes. (81g:20016)
 Lorenz, Martin (with Passman, Donald S.) Two applications of Maschke's theorem. (81k:16009)
 Mortimer, Brian The modular permutation representations of the known doubly transitive groups. (81f:20004)
 Passman, Donald S. See Lorenz, Martin, (81k:16009)
 Roggenkamp, Klaus W. \star Integral representations and structure of finite group rings. (81e:20010)
 Schwarz, Wolfgang Die Struktur modularer Gruppenringe endlicher Gruppen der p -Länge 1. (81a:20012)
 Willems, Wolfgang On the projectives of a group algebra. (81g:20007)

20C25 Projective representations and multipliers

- Altman, S. L. Double groups and projective representations. I. General theory. 81e:20009a
 (with Palacio, F.) Double groups and projective representations. II. Clebsch-Gordan coefficients. 81i:20009b
 Filipowski, H. (with Kruk, M.; Mozzymski, J.) Structure constants of algebras of projective representations of point groups. 81k:20020
 Holt, D. F. More on the local control of Schur multipliers. 81j:20022
 Humphreys, J. F. Rational valued and real valued projective characters of finite groups. 81b:20014
 The projective characters of the Mathieu group M_{12} and of its automorphism group. 81k:20021
 Kim, Wan Soon On Schur multipliers of some finite groups. 81m:20016
 Kruk, M. See Filipowski, H.; et al., 81k:20020
 Morris, A. O. Projective representations of reflection groups. II. 81j:20023
 Mozzymski, J. See Filipowski, H.; et al., 81k:20020
 Opolka, Hans Irreducible projective representations of finite nilpotent groups over number fields. 81d:20012
 Die verschränkte Gruppenalgebra einer endlichen Gruppe über einem Zahlkörper. 81i:20010
 Palacio, F. See Altman, S. L., 81e:20009b

secondary classifications:

- Cho, I. See Kwon, T.; et al., (81m:20010)
 Hamann, Keith Representations of nilpotent locally compact groups. (81e:22016)
 Kwon, T. (with Lee, K.; Cho, I.; Park, Seung Ahn) On generalized Heisenberg groups. (81m:20010)
 Lee, K. See Kwon, T.; et al., (81m:20010)
 Lorenz, Falko (with Opolka, Hans) Einfache Algebren und projektive Darstellungen über Zahlkörpern. (81m:12025)
 Opolka, Hans See Lorenz, Falko, (81m:12025)
 Park, Seung Ahn See Kwon, T.; et al., (81m:20010)
 Sanaki, Hiroki On a transfer theorem for Schur multipliers. (81g:20040)
 Wales, David B. Some projective representations of S_n . (81f:20015)

20C30 Representations of finite symmetric groups and other special finite groups

- Bayar, Ergin Youngsche Quadrupel und primitive Idempotente symmetrischer Gruppen. (Turkish summary) 81e:20015
 Černý, V. V. Characters of irreducible representations of the group G_n of formally analytical transformations of length n over the prime field of characteristic $p > 0$. Case $p > n - 1$. (Russian) 81g:20025
 Clausen, Michael Letter-Place-Algebren und ein Charakteristik-freier Zugang zur Darstellungstheorie symmetrischer und voller linearer Gruppen. 81k:20022
 Edwards, S. A. Gelfand bases and the permutation representations of the symmetric group associated with the subgroups $S_{\lambda_1} \times S_{\lambda_2} \times \dots \times S_{\lambda_r}$. 81g:20026
 Gündüzalp, Yavuz Über der Darstellungstheorie symmetrischer Gruppen. (Turkish summary) 81i:20011
 Hiller, Howard L. Flag manifolds and the hook formula. 81i:20012
 Huffman, W. Cary (with Wales, David B.) Linear groups of degree nine with no elements of order seven. 81e:20016
 James, Gordon D. The decomposition of tensors over fields of prime characteristic. 81h:20015
 Kerber, Adalbert On certain connections between the representation theory of the symmetric group and the representation theory of an arbitrary finite group. 81m:20017
 Lascoux, A. (with Schützenberger, Marcel-Paul) A new statistics on words. 81m:20018
 Mullineux, G. On the p -cores of p -regular diagrams. 81a:20017
 Murphy, Gwendolen On decomposability of some Specht modules for symmetric groups. 81m:20019
 Regev, Amital The identities of matrices, described by the characters of the symmetric groups. 81f:20014
 Schützenberger, Marcel-Paul See Lascoux, A., 81m:20018
 Wagner, Bernd Charaktere symmetrischer und monomialer Gruppen als Polynomfunktionen. 81g:20027

- Wales, David B. Some projective representations of S_n . 81f:20015
 See also Huffman, W. Cary, 81e:20016

secondary classifications:

- Billiet, Yves See Rolley Le Coz, Monique, (81k:20065b)
 Burkhardt, R. Über die Zerlegungszahlen der unitären Gruppen $PSU(3, 2^f)$. (81a:20055)
 Chilling, David (with Herzog, Marcel) Defect groups, trivial intersections and character tables. (81g:20021)
 de Concini, C. (with Eisenbud, David; Procesi, Claudio) Young diagrams and determinantal varieties. (81m:14034)
 Dress, Andreas W. M. Eine Bemerkung zur Ruch-Schönhofer'schen Halbordnung von Young-Diagrammen. (81b:05017)
 Eisenbud, David See de Concini, C.; et al., (81m:14034)
 Filipowski, H. (with Kruk, M.; Mozzymski, J.) Structure constants of algebras of projective representations of point groups. (81k:20020)
 Foulkes, H. O. Eulerian numbers, Newcomb's problem and representations of symmetric groups. (81g:05020)
 Herzog, Marcel See Chilling, David, (81g:20021)
 Humphreys, J. F. The projective characters of the Mathieu group M_{12} and of its automorphism group. (81k:20021)
 Ignatenko, V. F. The geometry of algebraic surfaces with symmetries. (Russian) (81m:14027)
 Kerber, Adalbert (with Wagner, Bernd) Gleichungen in endlichen Gruppen. (81k:20015)
 Kruk, M. See Filipowski, H.; et al., (81k:20020)
 Landrock, Peter (with Michler, Gerhard O.) Principal 2-blocks of the simple groups of Ree type. (81h:20013)
 Leron, Uri (with Moran, Gadi) The full cycles in a Young coset. (81d:05036)
 Lusztig, George A class of irreducible representations of a Weyl group. (81a:20052)
 Michler, Gerhard O. See Landrock, Peter, (81h:20013)
 Moran, Gadi See Leron, Uri, (81d:05036)
 Mozzymski, J. See Filipowski, H.; et al., (81k:20020)
 Mullineux, G. A bijection of the set of 3-regular partitions. (81i:05021)
 Procesi, Claudio See de Concini, C.; et al., (81m:14034)
 Rolley Le Coz, Monique (with Billiet, Yves) Le groupe $P1$ et ses sous-groupes. III. Conservation réticulaire. (English summary) (81k:20065b)
 Szalay, M. (with Turán, Pál) On some problems of the statistical theory of partitions with application to characters of the symmetric group. III. (81i:10063)
 Thomas, Glenford P. A note on Young's raising operator. (81e:10012)
 Thomas, John D. (with Zund, Joseph D.) A note on the theory of immanants. (81i:15008)
 Turán, Pál See Szalay, M., (81i:10063)
 Wagner, Bernd See Kerber, Adalbert, (81k:20015)
 White, Dennis E. Monotonicity and unimodality of the pattern inventory. (81m:05017)
 A Pólya interpretation of the Schur function. (81h:05018)
 Zund, Joseph D. See Thomas, John D., (81i:15008)

20C32 Representations of infinite symmetric groups and other special infinite groups

secondary classifications:

- Godunov, S. K. \star Теория спиноров и представлений группы вращений. (Russian) [Theory of spinors and representations of the rotation group] (81j:22025)
 Magnus, Wilhelm (with Tretkoff, C.) Representations of automorphism groups of free groups. (81i:20048)
 Tretkoff, C. See Magnus, Wilhelm, (81i:20048)

20C35 Applications to physics

- Backhouse, Nigel Clifford theory and its application to the representation theory of crystallographic space groups. 81m:20020
 Balasubramanian, K. The symmetry groups of nonrigid molecules as generalized wreath products and their representations. 81f:20016
 Bharathi, K. See Prasad, L. S. R. K., 81b:20015
 Cracknell, Arthur P. Irreducible representations of point groups and space groups—the last 50 years and the next 10 years. 81m:20021
 Dehual, Luan (with Wybourne, B. G.) The symmetric group: branching rules, products and plethysms for spin representations. 81m:20022
 Dinesha, K. V. See Sahasrabudhe, G. G.; et al., 81m:20024
 Dirl, R. Selection rules for magnetic groups: application to type II Shubnikov space groups. 81m:20023
 Fissler, Albert See Stiefel, Eduard L., 81m:20025
 Patera, J. (with Sharp, R. T.) Generating function techniques pertinent to spectroscopy and crystal physics. 81f:20017
 Prasad, L. S. R. K. (with Bharathi, K.) $6j$ symbols and $3jm$ factors for the group chain $D_{4d} \supset D_{4h} \supset C_{4v}$. 81b:20015
 Sahasrabudhe, G. G. (with Dinesha, K. V.; Sarma, C. R.) Clebsch-Gordan coefficients for the permutation group. 81m:20024
 Sarma, C. R. See Sahasrabudhe, G. G.; et al., 81m:20024
 Sharp, R. T. See Patera, J., 81f:20017
 Stiefel, Eduard L. (with Fissler, Albert) \star Gruppentheoretische Methoden und ihre Anwendung. (German) [Group-theoretic methods and their application] 81m:20025
 Sullivan, John J. Generalized back coupling rules for the Racah algebra of GL_n . 81f:20018
 Wybourne, B. G. See Dehual, Luan, 81m:20022

secondary classifications:

- Aragone, C. (with Chela-Flores, J.; Restuccia, A.) The Baker-Campbell-Hausdorff formula for the $SU(2)$ supergroups. (81i:17010)

- Rasubramanian, K. Graph theoretical characterization of NMR groups, nonrigid nuclear spin species and the construction of symmetry adapted NMR spin functions. (81m:20040)
- Biedenharn, L. C. See Louck, J. D., (81c:81075)
- Boyd, James N. (with Raychowdhury, P. N.) Projection operator techniques in Lagrangian mechanics: symmetrically coupled oscillators. (81c:70018)
(with Raychowdhury, P. N.) Representation theory of finite abelian groups applied to a linear diatomic crystal. (81c:81034)
- Bunker, P. R. Symmetry in $(H_2)_2$, $(D_2)_2$, $(HD)_2$, and H_2 - D_2 van der Waals complexes. (French summary) (81c:81076)
- Chela-Flores, J. See Aragone, C.; et al., (81i:17010)
- Cooper, J. L. B. Approximation by products to functions with group symmetry. (81g:81113)
- Davis, A. W. Invariant polynomials with two matrix arguments, extending the zonal polynomials. (81d:33009)
- Došlić, John C. Recent advances in group theory: a chemist's view. (81c:81077)
- Farrell, R. H. Calculation of complex zonal polynomials. (81d:33010)
- Fischer, Albert (with Mäder, R.) Symmetriegerechte Basisvektoren für Permutationsdarstellungen aller endlichen Punktgruppen der Dimensionen 3 und 2. (English summary) (81j:20058)
- Fritzer, Harald P. Some abstract group theory revised and characteristic applications. (81i:81037)
- Kan, E. M. A group of transformations for a planar static theory of elasticity. (Russian) (81f:73027)
- Kerber, Adalbert. Counting isomers and such. (81c:81080)
- Kibler, Maurice R. Finite symmetry adaptation in spectroscopy. (81c:81081)
- König, E. (with Kremer, S.) Tensor algebra and computational methods for intermediate and strong fields. (81c:81082)
- Kopáček, V. Exomorphic types of equitranslational phase transitions. (81k:82022)
- Korrikov, A. B. See Ljuckik, A. M., (81j:81071)
- Kremer, S. See König, E., (81c:81082)
- Krishnamurthy, T. S. G. (with Prasad, L. S. R. K.; Rama Mohana Rao, K.) Quasisymmetry and double point groups. (81d:82056)
- Litvin, Daniel B. Wreath groups—symmetry of crystals with structural distortions. (81f:82033)
- Ljuckik, A. M. (with Korrikov, A. B.) Optimization of the calculation of symmetry adapted matrix elements in the Hartree-Fock-Roothaan method. (Russian. English summary) (81j:81071)
- Louck, J. D. (with Biedenharn, L. C.) The permutation group and the coupling of n spin- $\frac{1}{2}$ angular momenta. (81c:81075)
- Mäder, R. See Fischer, Albert, (81j:20058)
- Meljanac, S. (with Pallua, S.) Quark masses and Cabibbo angles in an $SU(2)_c \times SU(2)_a \times U(1)$ gauge model with permutation symmetry. (81c:81070)
- Ozaki, Masa-aki. Group theoretical structure of a solution of the unrestricted Hartree-Fock equation in molecular systems with a spatial point symmetry. (81a:81116)
- Pallua, S. See Meljanac, S., (81c:81070)
- Patera, J. (with Saint-Aubin, Y.; Zassenhaus, Hans) Finite subgroups of the generalized Lorentz groups $O(p, q)$. (81c:22023)
(with Sharp, R. T.) Generating functions for plethysms of finite and continuous groups. (81c:22031)
- Prasad, L. S. R. K. See Krishnamurthy, T. S. G.; et al., (81d:82056)
- Rama Mohana Rao, K. See Krishnamurthy, T. S. G.; et al., (81d:82056)
- Raychowdhury, P. N. See Boyd, James N., (81c:70018) and Boyd, James N., (81c:81034)
- Restuccia, A. See Aragone, C.; et al., (81i:17010)
- Saint-Aubin, Y. See Patera, J.; et al., (81c:22023)
- Sharp, R. T. See Patera, J., (81c:22031)
- Shivree, V. A group-theoretic approach to the dynamics of multispin systems. VII. (Russian. Estonian and English summaries) (81c:81073)
- Zassenhaus, Hans. See Patera, J.; et al., (81c:22023)

20C99 None of the above, but in this section

- Burkhardt, R. Über die Zerlegungszahlen der Suzukigruppen $Sz(q)$. 81a:20018
- Eckmann, Beno (with Mislin, Guido) Rational representations of finite groups and their Euler class. 81d:20013
- Krop, L. E. Some applications of characters to varieties of representations of groups. (Russian) 81e:20017
(with Simonjans, L.) Pure and Magnus varieties of linear representation of groups. (Russian) 81e:20018
- Lubotzky, Alexander. On a problem of Grothendieck. 81a:20019
- Mislin, Guido. See Eckmann, Beno, 81d:20013
- Simonjans, L. The correspondence between varieties of linear representations of groups and Lie algebras. (Russian) 81a:20020
See also Krop, L. E., 81e:20018
- Steffen, Günther. Eigenschaften von Matrixgruppen über dem Restklassenring modulo p^k . 81e:20019

secondary classifications:

- Chouinard, Leo G., II. Transfer maps. (81j:18006)
- Efimov, A. V. (with Zolotareva, S. Ju.) Multiplicative Fourier integral and its discrete analogues. (Russian. English summary) (81j:42045)
- Endô, Shizuo (with Miyata, Takehiko) On the class groups of dihedral groups. (81h:16021)
- Grané Manlleu, José. On the surjectivity of the Ribenboim representation of a lattice-ordered group. (81j:06021)
- Griglar, L. Ja. Indecomposability of a variety of representations of groups. (Russian) (81d:20019)

- Jones, Vaughan F. R. Actions of finite groups on the hyperfinite type II₁ factor. (81m:46094)
- McMullen, J. R. An algebraic theory of hypergroups. (81f:20105)
(with Price, John F.) Duality for finite abelian hypergroups over splitting fields. (81f:20106)
- Morris, Russell. Manifestations of Pólya's counting theorem. (81g:05014)
- Miyata, Takehiko. See Endô, Shizuo, (81h:16021)
- Mollin, Richard Anthony. Induced p -elements in the Schur group. (81m:16016)
- Price, John F. See McMullen, J. R., (81f:20106)
- Zolotareva, S. Ju. See Efimov, A. V., (81j:42045)

20Dxx Abstract finite groups

- (Demuškin, S. P.) See On the theory of finite groups, 81e:20020
- (Kostrikin, A. I.) See On the theory of finite groups, 81e:20020
- Finite groups ★К теории конечных групп. (Russian) [On the theory of finite groups] 81e:20020
- On the theory of finite groups ★К теории конечных групп. (Russian) [On the theory of finite groups] 81e:20020

secondary classifications:

- Brauer, Richard ★Collected papers. Vol. I. (81i:01017a)
★Collected papers. Vol. II. (81i:01017b)
★Collected papers. Vol. III. (81i:01017c)
- (Cooperstein, Bruce N.) See Conference: Santa Cruz, Finite Groups, (81m:20004)
- (Fong, Paul) See Brauer, Richard, (81i:01017a); Brauer, Richard, (81i:01017b) and Brauer, Richard, (81i:01017c)
- (Goldman, O.) See Brauer, Richard, (81i:01017a)
- Gorenstein, Daniel ★Finite groups. (81b:20002)
- (Green, J. A.) See Brauer, Richard, (81i:01017a)
- (Mason, Geoffrey) See Conference: Santa Cruz, Finite Groups, (81m:20004)
- (Wong, Warren J.) See Brauer, Richard, (81i:01017a); Brauer, Richard, (81i:01017b) and Brauer, Richard, (81i:01017c)
- Bibliography:
Brauer, Richard Dagobert See Brauer, Richard, (81i:01017a)
- Biography:
Brauer, Richard Dagobert See Brauer, Richard, (81i:01017a)
- Conference:
Santa Cruz, Finite Groups ★The Santa Cruz Conference on Finite Groups. (81m:20004)
- Finite groups ★The Santa Cruz Conference on Finite Groups. (81m:20004)
- Santa Cruz, Calif. ★The Santa Cruz Conference on Finite Groups. (81m:20004)
- 20D05 Classification of simple and nonsolvable groups
- Aschbacher, Michael ★The finite simple groups and their classification. 81e:20021
A survey of the classification program for finite simple groups of even characteristic. 81f:20022
On finite groups of Lie type and odd characteristic. 81k:20023
- Bombieri, Enrico (with Odlyzko, A. M.; Hunt, D. C.) Thompson's problem ($\sigma^2=3$). 81f:20019
- Čač'ran, Kerope. Simple groups of order $2^a \cdot 3 \cdot 5 \cdot q^b$. 81f:20024
- Curtis, R. T. On subgroups of $\cdot O$. II. Local structure. 81f:20020
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- Solomon, Ronald M. See Finkelstein, Larry, 81a:20021 and Gilman, Robert, 81g:20028

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 Endliche Gruppen, die eine maximale 2-lokale Untergruppe besitzen, so daß $Z(F^*(M))$ eine TI-Menge in G ist. **81j:20025**
 Sytkin, S. A. Centralizers of 2-subgroups in finite groups. (Russian) **81b:20019**
 Timmesfeld, Franz Finite simple groups in which the generalized Fitting group of the centralizer of some involution is extraspecial. **81i:20016a**
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 Hering, Christoph (with Walker, Michael) Perspectives in irreducible collineation groups of projective planes. II. **(81b:51007)**
 Kano, Mikio On the number of conjugate classes of maximal subgroups in finite groups. **(81k:20030)**
 Liebler, Robert A. (with Yellen, Jay E.) In search of nonsolvable groups of central type. **(81g:20018)**
 Morrow, Dean C. See Alex, Leo J., **(81a:20016)**
 Walker, Michael See Hering, Christoph, **(81b:51007)**
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20D06 Simple groups: alternating and classical groups [See also 20Gxx, 22Exx.]

- Arad, Zvi (with Ferguson, Pamela A.) On finite groups containing three CC-subgroups. **81f:20026**
 Aschbacher, Michael Correction to: "A characterization of Chevalley groups over fields of odd order. I, II" [Ann. of Math. (2) **106** (1977), no. 2, 353–398; MR **58** #16865a; ibid. (2) **106** (1977), no. 3, 399–468; MR **58** #16865b]. **81j:20026**
 Bazarin, V. M. Finite groups with abelian centralizers of odd-order elements. (Russian) **81j:20027**
 Cherniak, Andrew Finite BN-pairs of rank two and even characteristic, having a nontrivial Cartan subgroup. **81k:20026**
 Cooperstein, Bruce N. The geometry of root subgroups in exceptional groups. I. **81e:20022**
 Dickson, N. K. (with Page, D. R.) Groups with dihedral 3-normalizers of order $4k$. III. **81e:20023**
 Ferguson, Pamela A. See Arad, Zvi, **81f:20026**
 Finkelstein, Larry (with Solomon, Ronald M.) Standard components of type M_{12} and 3D_4 . **81g:20033**
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secondary classifications:

- Thompson, J. G. Remarks on finite groups. **(81j:20006)**
 Wagner, Ascher The subgroups of $PSL(5, 2)$. **(81a:20054)**

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 Conway, J. H. (with Norton, S. P.) Monstrous moonshine. **81j:20028**
 Kac, Victor G. A remark on the Conway-Norton conjecture about the "Monster" simple group. **81m:20026**
 Norton, S. P. See Conway, J. H., **81j:20028**
 Solomon, Ronald M. Some standard components of sporadic type. **81h:20018**
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 Perkel, Manley A characterization of J_1 in terms of its geometry. **(81j:05066)**

20D10 Solvable groups, theory of formations, π -length, ranks, factorable groups, p -groups [See also 20F17.]

- Assaad, M. A note on supersolvable finite groups. (Arabic summary) **81d:20014**
 Baldauf, C. Fittinggründer und Lockettabschnitte für Fittingklassen endlicher auflösbarer Gruppen. **81g:20034**
 Barlotti, Marco A local definition of classes of groups. (Italian. English summary) **81a:20022**
 Beidleman, James C. (with Hauck, Peter) Über Fittingklassen und die Lockett-Vermutung. **81m:20027**
 Berger, Thomas R. Normal Fitting pairs and Lockett's conjecture. **81g:20035**
 Brison, Owen J. Hall operators for Fitting classes. **81h:20019**
 Brjuno, E. G. 2-length and 2-period of a finite solvable group. (Russian) **81j:20031**
 Casac, Elapheth The join of two Fitting classes. **81i:20018**
 Normal Fitting classes and Hall subgroups. **81m:20028**
 Doerk, Klaus (with Hawkes, Trevor O.) Ein Beispiel aus der Theorie der

Schunckklassen. **81k:20028**

- Förster, Peter Charakterisierungen einiger Schunckklassen endlicher auflösbarer Gruppen. IV. **81h:20020b**
 Über die iterierten Definitionsbereiche von Homomorphismen endlicher auflösbarer Gruppen. **81i:20019**
 Charakterisierungen einiger Schunckklassen endlicher auflösbarer Gruppen. III. **81h:20020a**
 Gaschütz, Wolfgang Eine Kennzeichnung der Projektoren endlicher auflösbarer Gruppen. **81j:20032**
 Glauberman, George On solvable signalizer functors in finite groups. (Russian) **(81e:20020)**
 Goldschmidt, David M. Solvable signalizer functors on finite groups. (Russian) **(81e:20020)**
 Hauck, Peter On products of Fitting classes. **81b:20020**
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 Hawkes, Trevor O. On Gaschütz's theory of generalized Sylow subgroups. **81k:20029**
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 Heineken, Hermann Group classes defined by chief factor ranks. (Italian summary) **81c:20007**
 Kano, Mikio On the number of conjugate classes of maximal subgroups in finite groups. **81k:20030**
 Kazarin, L. S. (with Korjukov, Ju. A.) Finite solvable groups with supersolvable maximal subgroups. (Russian) **81k:20031**
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 Laue, Reinhard Zur minimalen Erzeugendenzahl endlicher auflösbarer Gruppen. **81i:20020**
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 Napolitani, Franco Finite p -groups in which the minimal subgroups are quasinormal. (Italian. English summary) **81g:20036**
 Podufalova, V. D. On groups with β -pronormal β -normalizers. (Russian. English summary) **81j:20033**
 Schaller, Kay-Uwe Über starke Erzeugendensysteme in endlichen auflösbaren Gruppen. **81f:20027**
 Semetkov, V. N. Minimal non- β -groups. (Russian. English summary) **81f:20028**
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 Semetkov, L. A. ★Формации конечных групп. (Russian) [Formations of finite groups] **81i:20021**
 Skiba, A. N. Formations with a given system of subformations. (Russian. English summary) **81c:20008**
 Characterization of finite metanilpotent groups. (Russian) **81i:20022**
 Šmigrev, E. F. Complements to invariant subgroups. (Russian) **81h:20022**
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 Gornas, T. D. On the normal structure of finite groups. (Russian. English summary) **(81k:20033)**
 Jackowski, Stefan (with Zukowski, Tomasz) P -free linear representations of P -solvable finite groups. **(81g:20017)**
 Rickman, Benjamin Finite groups admitting automorphisms whose fixed point set is an elementary abelian 2-group. **(81e:20028)**
 Rowley, Peter Finite groups admitting an automorphism of prime order whose fixed point set is a 3-group. **(81g:20050)**
 Schmid, Peter A cohomological property of regular p -groups. **(81k:20071)**
 Srinivasan, Subramanian Two sufficient conditions for supersolvability of finite groups. **(81f:20044)**
 Tiberio, Umberto See Fedri, Valeria, **(81e:20043)**
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20D15 Nilpotent groups, p -groups

- Berger, Thomas R. (with Kovács, L. G.; Newman, M. F.) Groups of prime power order with cyclic Frattini subgroup. **81g:20037**
 Blackburn, N. (with Evans, Leonard) Schur multipliers of p -groups. **81a:20023**
 Caranti, Andrea Projectivity of p -groups of maximal class. (Italian) **81g:20038**
 Čudinov, M. N. A quasinormality condition for cyclic subgroups of composite order. (Russian) **81c:20009**
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 Heineken, Hermann Nilpotente Gruppen, deren sämtliche Normalteiler charakteristisch sind. **81h:20023**
 Hulro, E. I. Finite groups of period $p^a q^b$. (Russian) **81g:20039**
 A solvable group admitting a regular splitting automorphism of prime order is nilpotent. (Russian) **81h:20024**
 James, Rodney The groups of order p^2 (p an odd prime). **81a:20024**
 Kovács, L. G. See Berger, Thomas R.; et al., **81g:20037**
 Kowol, Gerhard Gruppen mit nilpotenter Kommutatorgruppe und Polynompermutationsgruppen. **81h:20021**
 Leedham-Green, C. R. (with Newman, M. F.) Space groups and groups of prime-power order. I. **81m:20029**
 Mays, Michael E. Counting p -nilpotent group orders. **81d:20015**
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- Peng, Tsu Ann On finite metanilpotent groups. **81j:20036**
 Webb, U. H. M. An elementary proof of Gaschütz' theorem. **81m:20030**
 Xu, Ming Yao Semi- p -abelian p -groups and their power structures. (Chinese) **81j:20037**
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 Laffey, Thomas J. The Hughes problem for exponent nine. **(81e:20027)**
 Pleasants, P. A. B. See Allen, S., **(81i:12017)**
 Skiba, A. N. Characterization of finite metanilpotent groups. (Russian) **(81i:20022)**

20D20 Sylow subgroups, Sylow properties, π -groups, π -structure

- Aleev, R. Z. Fusion-simple finite groups with decomposable Sylow 2-subgroups. (Russian) **81h:20025**
 Arad, Zvi (with Chillag, David) On centralizers of elements of odd order in finite groups. **81e:20025**
 Chillag, David See Arad, Zvi, **81e:20025**
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 Dickson, N. K. Structure theorems for groups with dihedral 3-normalisers. **81k:20032**
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 de Vivo, Clorinda A minimality problem concerning Sylow towers in finite groups. (Italian. English summary) **81m:20031**
 Zenkov, V. I. 2-Sylow intersections in finite groups. (Russian) **81g:20041**

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 Camina, Alan R. (with Herzog, Marcel) Character tables determine abelian Sylow 2-subgroups. **(81g:20012)**
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 Fukushima, Hiroshi Weakly closed dihedral 2-subgroups in finite groups. **(81i:20013)**
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20D25 Special subgroups (Fratini, Fitting, etc.)

- Allenby, R. B. J. T. Normal subgroups contained in Frattini subgroups are Frattini subgroups. **81g:20042**
 Barriga, Oscar An intersection property of certain subgroups of a finite group. **81d:20016**
 Brandt, Albrecht Über zwei Sätze von J. G. Thompson. **81g:20044**
 Feĭdman, Ja. L. \mathfrak{F}_2 -injectors of finite groups. (Russian) **81k:20034**
 Hayashi, Makoto 2-factorization in finite groups. **81e:20026**
 Iure, Virig Bemerkung zu einem Satz von H. Wielandt. (Romanian summary) **81j:20038**
 Laffey, Thomas J. The Hughes problem for exponent nine. **81e:20027**
 Peng, Tsu Ann The Fitting subgroup and the hypercentre. **81h:20027**
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 Romanovskii, A. V. On theorems of Feit and Itô on Zassenhaus groups. (Russian. English summary) **81g:20046**
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 Wright, C. R. B. Frattini embeddings of normal subgroups. **81g:20043**
 Žanud, E. M. The structure of finite groups with uniquely generated normal subgroups. (Russian) **81e:20010**

secondary classifications:

- Hack, Peter On products of Fitting classes. **(81b:20020)**
 Lane, Reinhard Zur minimalen Erzeugendenzahl endlicher auflösbarer Gruppen. **(81i:20020)**

20D30 Series and lattices of subgroups

- Čulhán, S. A. On the Schur-Zassenhaus splitting theorem. (Russian. English summary) **81m:20032**
 Duka, N. G. Finite groups, the maximal chains of whose subgroups contain p -subnormal

subgroups. (Russian) **81h:20028**

- Fort, Andrea Weakly supersolvable finite groups. (Italian. English summary) **81d:20017**
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 Kramer, Otto-Uwe Untersuchung der endlichen Gruppen, deren eigentliche Untergruppen alle i -stufig nilpotent sind. **(81h:20039)**

20D35 Subnormal subgroups

- Legovai, Pierantonio Minimal groups not in $\mathfrak{S}\mathfrak{P}/\mathfrak{N}$. (Italian) **81j:20039**
 Finite groups whose subgroups are either subnormal or pronormal. (Italian. English summary) **81j:20040**
 Wielandt, Helmut Über das Erzeugnis paarweise kosubnormaler Untergruppen. **81h:20035**

secondary classifications:

- McCaughan, D. J. (with Stonehewer, Stewart E.) Finite soluble groups whose subnormal subgroups have defect at most two. **(81h:20021)**
 Stonehewer, Stewart E. See McCaughan, D. J., **(81h:20021)**

20D40 Products of subgroups

- Knapp, Wolfgang Ein Faktorisierungssatz für endliche Gruppen und eine Anwendung. **81g:20047**

20D45 Automorphisms

- Hartley, Brian (with Robinson, Derek J. S.) On finite complete groups. **81g:20048**
 Iyer, Hariharan K. On solving the equation $\text{Aut}(X) = G$. **81a:20032**
 Nagrebeckii, V. T. The automorphism groups of finite Miller-Moreno groups. (Russian. English summary) **81g:20049**
 Rickman, Benjamin Finite groups admitting automorphisms whose fixed point set is an elementary abelian 2-group. **81e:20028**
 Finite groups which admit a coprime automorphism of prime order whose fixed point set is a cyclic 3-group. **81h:20030**
 Robinson, Derek J. S. See Hartley, Brian, **81g:20048**
 Rowley, Peter Finite groups admitting an automorphism of prime order whose fixed point set is a 3-group. **81g:20050**
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 Webb, U. H. M. An elementary proof of Gaschütz' theorem. **(81m:20030)**

20D50 Covering of subgroups

secondary classifications:

- Förster, Peter Über die iterierten Definitionsbereiche von Homomorphismen endlicher auflösbarer Gruppen. **(81i:20019)**

20D60 Arithmetic and combinatorial problems

- Gallagher, P. X. Invariants for finite groups. **81e:20011**
 Moser, William O. J. (with Newborn, Monroe M.) Placing counters to illustrate Burnside's lemma. **81f:20031**
 Newborn, Monroe M. See Moser, William O. J., **81f:20031**
 Pazderski, Gerhard The orders of which only belong metabelian groups. **81k:20037**

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- Asaad, M. On minimal subgroups which are pronormal. (Arabic summary) **81e:20029**
 Čak'ran, K. B. Finite groups having a maximal subgroup isomorphic to A_5 . **81e:20012**
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 Danilov, A. N. The Cauchy-Davenport-Chowla theorem for groups. (Russian) **81m:20033**
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 Knapp, Wolfgang On subgroups generated by a root triple. **81m:20034**
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 Sands, A. D. On Keller's conjecture for certain cyclic groups. **81e:20013**
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 Schultz, Barbara Über die induktive Isomorphie endlicher Gruppen. I. **81j:20043**
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Hironaka, Yumiko See Endô, Shizuo, (81c:12018)

Rittenberg, V. See Casalbuoni, R.; et al., (81f:82008)

Tomás, Francisco Reconstruction of finite groups from the normal closures of their Sylow subgroups and their mutual actions. (Spanish) (81e:20037)

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Newman, M. F. Bibliography. 81m:20036

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20E05 Free nonabelian groups

Abian, Alexander A new construction of free groups. 81c:20014

Brown, Kenneth A. The derived subgroup of a free metabelian group. 81a:20033

Craggs, Robert Free Heegaard diagrams and extended Nielsen transformations. II. 81g:20052b

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Hoare, A. H. M. An embedding for groups with length functions. 81g:20053

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Macedońska-Nowak, Olga Note on automorphisms of a free abelian group. 81h:20032

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Piccard, Sophie Les groupes P -symétriques. 81h:20033

Sanchez, Carlos Marcelo Minimal words in the free group of rank two. 81h:20034

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Ignatov, Ju. A. Free and nonfree subgroups of $PSL_2(C)$ that are generated by two parabolic elements. (Russian) (81g:20097)

Magnus, Wilhelm (with Tretkoff, C.) Representations of automorphism groups of free groups. (81i:20048)

Tretkoff, C. See Magnus, Wilhelm, (81i:20048)

Zimmer, R. Warwick On the near-ring generated by the endomorphisms of a free group. (81m:16039)

20E06 Free products, free products with amalgamation, Higman-Neumann-Neumann extensions, and generalizations

Baumslag, Benjamin (with Tretkoff, Marvin D.) Residually finite HNN extensions. 81e:20031

Britton, J. L. The conjugacy problem for an HNN extension of an abelian group. 81h:20036

Brunner, A. M. (with Burns, Robert G.) Groups in which every finitely generated subgroup is almost a free factor. 81i:20027a

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Burns, Robert G. See Brunner, A. M., 81i:20027a and Brunner, A. M., 81i:20027b

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Lyndon, Roger C. Cancellation theory in free products with amalgamation. 81h:20037

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Reiher, Wolfram Die Nielsenäquivalenzklassen der metabelsch gemachten Torusknotengruppen. 81f:20034

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Tilin, Ju. V. Normal subgroups of generalized free products satisfying a nontrivial identity. (Russian. English summary) 81i:20028

Tretkoff, Marvin D. See Baumslag, Benjamin, 81e:20031

secondary classifications:

Amshel, Michael Vector groups and the equality problem for vector addition systems. (81e:20042)

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20F10 Word problems, other decision problems, connections with logic and automata [See also 03D05, 03D40, 06B25, 08A50, 68Dxx, 68F10.]

- Aanderaa, Stål (with Cohen, Daniel E.) Modular machines, the word problem for finitely presented groups and Collins' theorem. **81m:20048**
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- Guralnick, Robert M. On a result of Schur. **81a:20042**
- Expressing group elements as commutators. **81k:20048**
- Herman, Krzysztof General form of free generators of kernels of certain verbal operations. (Polish. Russian and English summaries) **81d:20025**
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- Sergeičuk, V. V. Finitely generated groups with prime-order commutator. (Russian) **81j:20049**
- Wong, Peng Choon Cyclic extensions of free groups. **81f:20042**

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- Kurosh, V. V. The commutator of the general linear group over a field. (Russian. English summary) **(81i:20051)**

20F14 Derived series, central series, and generalizations

- Baumslag, Gilbert Some reflections on ascending derived series. **81b:20028**
- Grzegorek, A. A proof of Ph. Hall's theorem on dimension subgroups. **81f:20043**

secondary classifications:

- Čunilín, S. A. On the Schur-Zassenhaus splitting theorem. (Russian. English summary) **(81m:20032)**
- Seksenbaev, K. S. The lower central series of a wreath product of finitely generated abelian groups. (Russian) **(81f:20037)**

20F16 Solvable groups, supersolvable groups

- Amberg, Bernhard Lokal endlich-auflösbare Produkte von zwei hyperzentralen Gruppen. **81k:20052**
- Bieri, Robert (with Strebel, Ralph) Metabelian quotients of finitely presented soluble groups are finitely presented. **81g:20068**
- (with Strebel, Ralph) Soluble groups with coherent group rings. **81m:20054**
- Bruno, Brunella (with Emaldi, Maurizio) On groups all of whose subgroups are normal-serial. (Italian. English summary) **81g:20069**
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- Bieri, Robert Finitely presented soluble groups. (**81g:20062**)
 Chen, Zhong Mu Inner Σ groups. (Chinese) (**81g:20074**)
 Heineken, Hermann Group classes defined by chief factor ranks. (Italian summary) (**81c:20007**)
 Wehrhitz, Bertram A. F. Finitely generated modules over polycyclic groups. (**81e:20009**)

20F17 Formations of groups [See also 20D10.]

20F18 Nilpotent groups

- Hilton, Peter (with Roitberg, Joseph) Profinite completion and generalizations of a theorem of Blackburn. **81b:20029**
 Moran, Siegfried (with Williams, Janet) Completions of certain nilpotent groups. **81d:20028**
 Roitberg, Joseph. See Hilton, Peter, **81b:20029**
 Webb, U. H. M. Outer automorphisms of some finitely generated nilpotent groups. I. **81e:20044**
 Williams, Janet. See Moran, Siegfried, **81d:20028**

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- Grunewald, Fritz J. (with Segal, Daniel) The solubility of certain decision problems in arithmetic and algebra. (**81b:10014**)
 Gupta, Narain (with Levin, Frank) Descending chains of nilpotent varieties. (**81c:20015**)
 Kovács, L. G. The thirty-nine varieties. (**81m:20037**)
 Lennox, John C. (with Robinson, Derek J. S.) Soluble products of nilpotent groups. (**81j:20050**)
 Levin, Frank. See Gupta, Narain, (**81c:20015**)
 Linsam, V. V. Isomorphisms of nilpotent decompositions of groups that have a principal series. (Russian) (**81h:20038**)
 Robinson, Derek J. S. See Lennox, John C., (**81j:20050**)
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 Shastri, Anant R. Some cancellation theorems. (**81k:20046**)
 Zaicev, D. I. Solvable groups of finite rank. (Russian) (**81j:20052**)

20F19 Generalizations of solvable and nilpotent groups

- Chen, Zhong Mu Inner Σ groups. (Chinese) **81g:20074**
 Fedri, Valeria (with Tiberio, Umberto) The finite groups whose proper local subgroups are supersolvable. (Italian, English summary) **81e:20043**
 Kemhadze, S. S. On classes of groups of O. Ju. Schmidt type. (Russian) **81k:20053**
 Liman, F. M. Infinite groups with a normalizer condition for acyclic subgroups. (Russian) **81j:20053**
 Tiberio, Umberto. See Fedri, Valeria, **81e:20043**
 Tokarenko, A. I. Axiomatizability of the group-theoretic property Z . (Russian) **81c:20022**

secondary classifications:

- Černikov, S. M. Some conditions of extremality for infinite p -groups. (Russian) (**81d:20021**)
 García Enaola, Marta ★Inyectores en grupos localmente finitos-resolubles. (Spanish) [Injectors in locally finite-solvable groups] (**81a:20046**)
 Kurdachenko, L. A. Groups that satisfy weak minimality and maximality conditions for normal subgroups. (Russian) (**81e:20034**)
 Šmel'kin, A. L. See Tavazde, A. D., (**81e:20035**)
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20F22 Other classes of groups defined by subgroup chains

- Grunewald, Fritz J. (with Pickel, P. F.; Segal, Daniel) Polycyclic groups with isomorphic finite quotients. **81i:20045**
 Hulse, J. A. A local characterisation of serial subgroups. **81c:20029**
 Pickel, P. F. See Grunewald, Fritz J.; et al., **81i:20045**
 Segal, Daniel. See Grunewald, Fritz J.; et al., **81i:20045**

secondary classifications:

- Černikov, S. M. ★Группы с заданными свойствами системы подгрупп. (Russian) [Groups with given properties of a system of subgroups] (**81k:20001**)

20F24 FC-groups and their generalizations

- Tomkinson, M. J. On the commutator subgroup of a periodic FC-group. **81i:20046**
 secondary classifications:

- Felgner, Ulrich The model theory of FC-groups. (**81m:03045**)

20F26 Special subgroups

- Moszer, Zenon Les repères dans la géométrie de Klein. **81m:20055**
 Tabor, József On some groups connected with the repers. **81m:20056**

secondary classifications:

- Dutta, T. K. See Sen, M. K., (**81d:20056**)
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 Herfort, Wolfgang N. See Gildenhuys, Dion; et al., (**81g:20058**)
 Napolitani, Franco Finite p -groups in which the minimal subgroups are quasnormal. (Italian, English summary) (**81g:20036**)
 Ribes, Luis. See Gildenhuys, Dion; et al., (**81g:20058**)
 Sen, M. K. (with Dutta, T. K.) On pseudo-ideals of groups. (**81d:20056**)
 Stelmacher, Bernd Über den schwachen Abschluß von TI-Untergruppen in ihrem Normalisator. (**81a:20025**)

20F28 Automorphism groups of groups [See also 20E36.]

- Curzio, Mario The groups for which each proper subgroup has a finite automorphism group. (Italian) **81i:20047**
 Magnus, Wilhelm (with Tretkoff, C.) Representations of automorphism groups of free groups. **81i:20048**
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 Malone, J. J. A nonabelian 2-group whose endomorphisms generate a ring, and other examples of E -groups. **81m:20057**
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 Simon, A. M. Une démonstration du théorème de Higman, Neumann, Neumann. **81a:20044**
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 Wehrhitz, Bertram A. F. The centralizer poset in groups of semilinear maps. **81d:20030**
 Zaicev, D. I. Infinitely irreducible normal subgroups. (Russian) **81d:20031**

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- Blotičyn, V. Ja. Automorphisms of the general linear group over a commutative ring not generated by zero divisors. (Russian) (**81k:20040**)
 Lawton, Richard A note on a theorem of Heineken and Liebeck. (**81e:20024**)
 Meldrum, J. D. P. (with Oswald, A.) Near-rings of mappings. (**81g:16042**)
 Neumann, Peter M. Endomorphisms on infinite soluble groups. (**81g:20071**)
 Oswald, A. See Meldrum, J. D. P., (**81g:16042**)
 Petčuk, V. M. Automorphisms of the groups SL_n , GL_n over certain local rings. (Russian) (**81k:20061**)
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 Scott, S. D. The automorphism group of a near-ring. (**81j:16046**)

20F29 Representations of groups as automorphism groups of algebraic systems

- Clausen, Michael Letter place algebras and a characteristic-free approach to the representation theory of the general linear and symmetric groups. I. **81a:20045**
 Lawton, Richard A note on a theorem of Heineken and Liebeck. **81e:20024**

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- Fisher, Joe W. (with Osterburg, James) Finite group actions on noncommutative rings: a survey since 1970. (**81i:16001**)
 Magill, Kenneth D., Jr. Automorphism groups of laminated near-rings. (**81i:16046**)
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 Plotkin, B. I. Locally finite and locally bounded varieties of pair-representations of groups. (Russian) (**81f:20007**)
 Titin, Ju. V. Linearity of generalized free products of abelian linear groups. (Russian, English summary) (**81e:20059**)

20F32 Geometric group theory [See also 05C25, 20Exx, 20Gxx.]

- Cundy, H. Martyn $p3m1$ or $p31m$? **81d:20032**
 Gallian, Joseph A. (with Marttila, Charles A.) Reorienting regular n -gons. **81f:20045**
 Iskander, Ali. See Tykiet, R. I., **81d:20033**
 Marttila, Charles A. See Gallian, Joseph A., **81f:20045**
 Tretkoff, Marvin D. A topological approach to the theory of groups acting on trees. **81b:20030**
 Tykiet, R. I. (with Iskander, Ali) Isomorphism of Cayley tournaments whose order is equal to the product of two primes. (Russian, English summary) **81d:20033**
 Voss, Waltraud Graphs and groups. **81g:20075**

secondary classifications:

- Doković, Dragomir Ž.** (with Miller, Gary L.) Regular groups of automorphisms of cubic graphs. (81m:05076)
- Jungerman, Mark** (with White, Arthur T.) On the genus of finite abelian groups. (81m:05077)
- Kulkarni, R. S.** Groups with domains of discontinuity. (81m:30046)
- Lim, Chong Keng** Graphical regular representations of groups: a survey. (81h:05076)
- Miller, Gary L.** See **Doković, Dragomir Ž.**, (81m:05076)
- Parthasarathy, K. R.** Graphs and groups. (81a:05066)
- Sachs, Horst** Graphs and surfaces assigned to finite groups. (French summary) (81f:05071)
- Wagner, Ascher** The subgroups of $PSL(5, 2^2)$. (81a:20054)
- Weles, Richard M.** An application of p -factorization methods to symmetric graphs. (81h:05059)
- White, Arthur T.** See **Jungerman, Mark**, (81m:05077)

20F34 Fundamental groups and their automorphisms [See also 57M05, 57Sxx.]

20F36 Braid groups

- Dyer, Joan L.** The algebraic braid groups are torsion-free: an algebraic proof. 81f:20046
- McCool, James** On reducible braids. 81m:20058
- Thomas, R. S. D.** An exploratory algorithm and some results on braids closed to a circle. 81c:20025

secondary classifications:

- Kallman, S. I.** Holomorphic endomorphisms of the complex Weyl chambers of the series D_n . (Russian) (81g:32019)
- Magnus, Wilhelm** Rings of Fricke characters and automorphism groups of free groups. (81a:20043)
- Morton, H. R.** Closed braids which are not prime knots. (81a:57011)

20F38 Other groups related to topology or analysis

- Bryant, Roger M.** (with Yen, Ti) Sylow subgroups of locally finite CZ-groups. 81g:20076
- Neumann, Walter D.** Normal subgroups with infinite cyclic quotient. 81k:20054
- Sztlágyi, Miklós** About an infinite composition attached to a system of partial function in a topological Ω -group. 81j:20054
- Yen, Ti** See **Bryant, Roger M.**, 81g:20076

secondary classifications:

- Akaza, Tohru** (with Furusawa, Harushi) The exponent of convergence of Poincaré series on some Kleinian groups. (81j:30080)
- Das Gupta, A.** Representation of a lattice as a sublattice of the lattice of compatible topologies of a group. (81j:06008)
- Dovermann, Karl Heinz** (with Petrie, Ted) Artin relation for smooth representations. (81m:57032)
- Furusawa, Harushi** See **Akaza, Tohru**, (81j:30080)
- Mendelsohn, Eric** Every (finite) group is the group of automorphisms of a (finite) strongly regular graph. (81a:05065)
- Petrie, Ted** See **Dovermann, Karl Heinz**, (81m:57032)
- Phelps, K. T.** Latin square graphs and their automorphism groups. (81e:05082)

20F40 Associated Lie structures

secondary classifications:

- Baumslag, Gilbert** (with Strebel, Ralph; Thomson, Michael W.) On the multiplier of $F/\gamma_i R$. (81e:20039)
- Strebel, Ralph** See **Baumslag, Gilbert**; et al., (81e:20039)
- Thomson, Michael W.** See **Baumslag, Gilbert**; et al., (81e:20039)

20F45 Engel conditions

20F50 Periodic groups

- Antonov, V. A.** Groups that are close to Gaschütz groups. (Russian) 81h:20045
- Dixon, M. R.** (with Tomkinson, M. J.) The local conjugacy of some Sylow bases in a class of locally finite groups. 81j:20055
- Hartley, Brian** (with Meixner, Th.) Periodic groups in which the centralizer of an involution has bounded order. 81h:20049
- Hickin, Kenneth K.** (with Phillips, Richard E.; Plotkin, J. M.) Periodic groups generated by finite amalgams. 81g:20077
- James, S. C.** Counting the periodic groups generated by two finite groups. 81j:20056
- Meixner, Th.** See **Hartley, Brian**, 81h:20049
- Phillips, Richard E.** See **Hickin, Kenneth K.**; et al., 81g:20077
- Plotkin, J. M.** See **Hickin, Kenneth K.**; et al., 81g:20077
- Razmyslov, Ju. P.** The nonsolvability of the variety of groups of exponent 4. 81f:20047
- Sosnov, A. I.** (with Sunkov, V. P.) Infinite groups saturated by Frobenius subgroups. II. (Russian) 81h:20046
- Sunkov, V. P.** See **Sosnov, A. I.**, 81h:20046
- Tomkinson, M. J.** See **Dixon, M. R.**, 81j:20055

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- Bryant, Roger M.** (with Hartley, Brian) Periodic locally soluble groups with the minimal condition on centralizers. (81d:20022)

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- Curzio, Mario** ★Some problems of Sylow type in locally finite groups. (81a:20040)
- Hartley, Brian** See **Bryant, Roger M.**, (81d:20022)
- Newman, M. F.** Groups of exponent dividing seventy. (81b:20025)
- Tomkinson, M. J.** On the commutator subgroup of a periodic FC-group. (81h:20046)

20F60 Ordered groups [See mainly 06F15.]

20F99 None of the above, but in this section

- Bredihin, D. A.** RL -lattices of congruences of groups. (Russian) 81c:20026
- Chehata, C. G.** (with Sherif, Hanan H.) Embedding theorems for operator groups. 81c:20027
- Costovici, Gh.** On groups obtained from groups with groups of operators. (Romanian summary) 81f:20048
- Fluch, W.** Zur Fastperiodizität von Gruppen. 81d:20034
- Garcia Esnaola, Marta** ★Injectores en grupos localmente finitos-resolubles. (Spanish) [Injectors in locally finite-solvable groups] 81a:20046
- Hässelbarth, W.** (with Ruch, Ernst; Klein, D. J.; Seligman, Thomas H.) Bilateral classes: a new class concept of group theory. 81b:20031
- Klein, D. J.** See **Hässelbarth, W.**; et al., 81b:20031
- Lennox, John C.** (with Roseblade, James E.) Soluble products of polycyclic groups. 81a:20047
- Marchionna Tibiletti, Cesarina** Distance in a group. (Italian. English summary) 81f:20049
- Groups with distance $d < 2$. (Italian. English summary) 81f:20050
- Roseblade, James E.** See **Lennox, John C.**, 81a:20047
- Ruch, Ernst** See **Hässelbarth, W.**; et al., 81b:20031
- Scott, G. Peter** Ends of pairs of groups. 81h:20047
- Seligman, Thomas H.** See **Hässelbarth, W.**; et al., 81b:20031
- Sherif, Hanan H.** See **Chehata, C. G.**, 81c:20027

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- Špiž, G. B.** Transformation groups with algebraic invariants. (Russian) (81d:14025)
- Vila Mitja, A.** g -valuations of distributive lattices. (Spanish) (81d:06019)

20Gxx Linear algebraic groups (classical groups) (For arithmetic theory, see 10C30, 10E45; for geometric theory, see 14Lxx, 22Exx; for other methods in representation theory, see 22E45, 22E46, 22E47, 22E50, 22E55.)

- James, David G.** (with Waterhouse, William C.; Weisfeiler, Boris) Abstract homomorphisms of algebraic groups: problems and bibliography. 81m:20059
- Waterhouse, William C.** See **James, David G.**; et al., 81m:20059
- Weisfeiler, Boris** See **James, David G.**; et al., 81m:20059

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20G05 Representation theory

- Carter, Roger William** (with Payne, M. T. J.) On homomorphisms between Weyl modules and Specht modules. 81h:20048
- Cline, Edward** (with Parshall, Brian; Scott, Leonard) Induced modules and extensions of representations. II. 81f:20051
- (with Parshall, Brian; Scott, Leonard) On the tensor product theorem for algebraic groups. 81e:20046
- Donkin, Stephen** Blocks of rational representations of a semisimple algebraic group. 81j:20057
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- On a question of Verma. 81h:20049
- Erohin, V. A.** Invariants of the group $Sp_4(2)$. (Russian) 81g:20078
- Fässler, Albert** (with Mäder, R.) Symmetriegerechte Basisvektoren für Permutationsdarstellungen aller endlichen Punktgruppen der Dimensionen 3 und 2. (English summary) 81j:20058
- Frame, J. Sutherland** Degree polynomials for the orthogonal groups over $GF(2)$. 81j:20059
- Kilmoyer, Robert W.** Principal series representations of finite Chevalley groups. 81e:20047
- Lehrer, G. I.** On the value of characters of semisimple groups over finite fields. 81g:20079
- Lusztig, George** On the reflection representation of a finite Chevalley group. (See 81j:22001)
- Mäder, R.** See **Fässler, Albert**, 81j:20058
- Niemi, Henry** On the construction of the irreducible representations of the hyperalgebra of a universal Chevalley group. 81k:20056
- Ozeki, Kazuo** On the microlocal structure of the regular prehomogeneous vector space associated with $SL(5) \times GL(4)$. I. 81k:20057
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 Kutsko, Philip The Langlands conjecture for GL_2 of a local field. (81e:12027)
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 Labotzky, Alexander Tannaka duality for discrete groups. (81m:22009)
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 Naimark, M. A. (with Stern, A.) ★Théorie des représentations des groupes. (French) [Theory of group representations] (81b:22001)
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 Wallach, Nolan R. The analytic continuation of the discrete series. I, II. (81a:22009)
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20G10 Cohomology theory

- Cline, Edward (with Parshall, Brian; Scott, Leonard) Cohomology, hyperalgebras, and representations. 81k:20060
 Hiller, Howard L. Cohomology of Chevalley groups over finite fields. 81a:20049
 van der Kallen, Wilberd Infinitesimally central extensions of Spin, in characteristic 2. 81h:20050
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 Parshall, Brian See Cline, Edward; et al., 81k:20060
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 Soule, Christophe Chevalley groups over polynomial rings. 81g:20080

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- Charney, Ruth M. Homology stability for GL_n of a Dedekind domain. (81h:18010)
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 Weisfeller, Boris On a case of extensions of group schemes. (81c:14027)

20G15 Linear algebraic groups over arbitrary fields

- Akyildiz, Yilmaz On the normalizer of unipotent radical. (Turkish summary) 81g:20081
 Carter, Roger William Centralizers of semisimple elements in finite groups of Lie type. 81g:20082
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 Leung, Kam W. The isomorphism theory of projective pseudo-orthogonal groups. 81g:20084
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20G20 Linear algebraic groups over the reals, the complexes, the quaternions

- Bacry, H. Constellations and projective classical groups. 81f:20055
 Bender, Peter Eine Präsentation der symplektischen Gruppe $Sp(4, \mathbb{Z})$ mit 2 Erzeugenden und 2 definierenden Relationen. 81j:20062
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 Magnus, Wilhelm Rings of Fricke characters and automorphism groups of free groups. (81a:20043)

- Muro, Masakazu On prehomogeneous vector spaces related to binary cubic forms. I. The orbital decomposition in the real domain. (81e:14028)
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- Grunewald, Fritz J. Solution of the conjugacy problem in certain arithmetic groups. 81h:20054
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- Behr, Helmut $SL_2(F_q[t])$ is not finitely presentable. 81e:20052
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- Platonov, V. P. (with Rapinčuk, A. S.) On the group of rational points of three-dimensional groups. (Russian) (81a:12014)
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- Borevič, Z. I. (with Vavilov, N. A.) Subgroups of the general linear group over a semilocal ring that contain a group of diagonal matrices. (Russian) 81g:20065
(with Dybkova, E. V.) The index of net subgroups in the general and special linear groups over a Dedekind ring. (Russian) 81g:20066
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- Blökčecyn, V. Ja. Automorphisms of the general linear group over a commutative ring not generated by zero divisors. (Russian) (81k:20040)
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Thoma, Karlheinz Die Untermoduln von $M(n, K)$. (81h:16042)
Vavilov, N. A. Parabolic subgroups of Chevalley groups of twisted type over a semilocal ring. (Russian) (81j:20069)

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- Cameron, Peter J. (with Kantor, William M.) 2-transitive and antitrag transitive collineation groups of finite projective spaces. 81c:20032
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Dar, K. H. Maximal subgroups of the Tits simple group. 81m:20061
Di Martino, Lino (with Wagner, Ascher) The irreducible subgroups of $PSL(V, q)$, where q is odd. 81e:20053
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- Aschbacher, Michael On finite groups of Lie type and odd characteristic. (81k:20023)
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Dunkl, Charles F. Orthogonal polynomials in two variables of q -Hahn and q -Jacobi type. (81k:33011)
Fong, Paul (with Srinivasan, Bhama) Blocks with cyclic defect groups in $GL(n, q)$. (81k:20019)
Howlett, Robert B. (with Lehrer, G. I.) Induced cuspidal representations and generalised Hecke rings. (81j:20017)
Humphreys, James E. Deligne-Lusztig characters and principal indecomposable modules. (81g:20022)
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- Alekseevskii, A. V. Component groups of centralizers of unipotent elements in semisimple algebraic groups. (Russian. English summary) 81k:20063
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- Finkelstein, Larry (with Solomon, Ronald M.) Finite simple groups with a standard 3-component of type $Sp(2n, 2)$, $n > 4$. (81a:20021)
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Margrave, Geoffrey Special arithmetic subgroups of Chevalley groups. (81h:22011)
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- Wybourne, B. G. Aspects of the exceptional group E_8 . (81c:22033)

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- Burkhardt, R. Über die Zerlegungszahlen der unitären Gruppen $PSU(3, 2^2)$. 81a:20055
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20H10 Fuchsian groups and their generalizations [See also 10D07, 22E40, 30F35, 32Nxx.]

- Brunner, A. M. (with Burns, Robert G.; Wiegold, James) On the number of quotients of one kind or another, of the modular group. 81e:20056
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Yamamoto, Hiro-o Constructibility and geometric finiteness of Kleinian groups. (81k:30068)

20H15 Other geometric groups, including crystallographic groups [See also 51-XX, especially 51F15, and 82A60.]

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Cohen, Arjeh M. Erratum: "Finite complex reflection groups" [Ann. Sci. École Norm. Sup. (4) 9 (1976), no. 3, 379-436; MR 54 #10437]. 81d:20042

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Louhesti, Pertti What kind of parquet should I choose for the four-dimensional floor of my five-dimensional apartment? (Finnish. English summary) (81b:51011)

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Moody, Robert V. Root systems of hyperbolic type. (81g:17006)

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Palistrant, A. F. See Zamorzaev, A. M., (81m:51021)

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Laska, Michael A note on finite linear groups. (81k:20016)

Levinson, Henry Symmetric embeddings of Cayley graphs. (81c:05033)

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Tabor, József On commutative algebraic objects over the group $GL(n, R)$. (81i:08006)

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Borevick, Z. I. (with Vavilov, N. A.; Narkiewicz, Władysław) Subgroups of the general linear group over a Dedekind ring. (Russian) (81i:20053)

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Steffen, Günther Eigenschaften von Matrixgruppen über dem Restklassenring modulo p^k . (81e:20019)

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Di Martino, Lino (with Wagner, Ascher) The irreducible subgroups of $PSL(V, q)$, where q is odd. (81e:20053)

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Bieri, Robert On groups of cohomology dimension 2. 81k:20070

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Blanc, Philippe Projectifs dans la catégorie des G -modules topologiques. (English summary) (81m:22007)

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Hohing Xuan Sinh Gr-catégories strictes. (81d:18014)

Mielants, W. Remark on the generalized graph extension theorem. (81k:20004)

Shirai, Susumu A remark on the corestriction-deflation sequence. (81k:12029)

Sjerve, Denis Homology isomorphisms. (81b:55018)

Stein, Michael R. Excision and K_1 of group rings. (81k:18009)

20J06 Cohomology of finite groups

Avramila, George S. 2-cohomology of some unitary groups. 81i:20062

Jackowski, Stefan Group homomorphisms inducing isomorphisms of cohomology. 81j:20071

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Nguyen-Quang-Do Thang Sur le module des relations d'un p -groupe et la suite exacte d'inflation-restriction. 81i:20064

Schmid, Peter A cohomological property of regular p -groups. 81k:20071

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Talelli, Olympia On cohomological periodicity of ZG-lattices. (81a:16008)

Wilson, Stephen M. J. Generators by inflation. (81b:20011)

20J10 Groups arising as cohomology groups

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Holt, D. F. More on the local control of Schur multipliers. (81j:20022)

20J15 Category of groups

20J99 None of the above, but in this section

Huebschmann, Johannes Cohomology theory of aspherical groups and of small cancellation groups. 81f:20066

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secondary classifications:

Lennox, John C. (with Robinson, Derek J. S.) Soluble products of nilpotent groups. (81j:20050)

Ratcliffe, John G. On the second transgression of the Lyndon-Hochschild-Serre spectral sequence. (81c:18021)

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20Kxx Abelian groups

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20K01 Finite abelian groups

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Bazelow, Alexander R. (with Brickle, Frank) A combinatorial problem in music theory—Babbitt's partition problem. I. (81k:05023a)

(with Brickle, Frank) A combinatorial problem in music theory—Babbitt's partition problem. II. (81k:05023b)

Brickle, Frank See Bazelow, Alexander R., (81k:05023a) and Bazelow, Alexander R., (81k:05023b)

Kanetkar, Sharad V. (with Wagh, Meghanad D.) Group character tables in discrete transform theory. (81b:94006)

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Nicolas, Jean-Louis Sur les entiers n pour lesquels il y a beaucoup de groupes abéliens d'ordre n . (81e:10052)

Salzborn, F. (with Szekeres, G.) A problem in combinatorial group theory. (81b:05011) (Starr, Daniel) See Bazelow, Alexander R.; et al., (81k:05023a)

Szekeres, G. See Salzborn, F., (81b:05021)

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Volpentea, A. Some remarks about homomorphisms and group minimization problems. (81j:20085)

Wagh, Meghanad D. See Kanetkar, Sharad V., (81b:94006)

20K05 Finitely generated groups

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Bican, Ladislav Purely finitely generated abelian groups. (81i:20067)

Brown, Kenneth A. The derived subgroup of a free metabelian group. (81a:20033)

Byrd, Ken (with Vaughan, Theresa P.) A group of integral points in a matrix parallelepiped. (81f:15027)

Vaughan, Theresa P. See Byrd, Ken, (81f:15027)

20K10 Torsion groups, primary groups and generalized primary groups

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Fadyn, Joseph N. The projectivity of $\text{Ext}(T, A)$ as a module over $E(T)$. 81i:20066

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Rogers, Laurel Basic subgroups from a constructive viewpoint. 81j:20073

secondary classifications:

Fein, Burton (with Schacher, Murray) Brauer groups of fields. (81k:12025)

Hill, Paul Quotients of valued vector spaces. (81k:18013)

Schacher, Murray See Fein, Burton, (81k:12025)

20K12 Ulm sequences

secondary classifications:

Taichin, M. A. Program theories of periodic abelian groups. (Russian) (81j:03054)

20K15 Torsion free groups, finite rank

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- De Munter-Kuyt, Lucie A note on the existence of torsion-free modules with a prescribed type-set. **81j:20074**
- Feigelstock, Shalom A simple proof of a theorem of Stratton. **81m:20069**
- Heine, J. (with Hensel, H.) Über Pseudodivisibilität und vollständige Zerlegbarkeit torsionsfreier abelscher Gruppen. **81k:20073**
- Hensel, H. See Heine, J., **81k:20073**
- Krylov, P. A. Abelian torsion-free groups and their rings of endomorphisms. (Russian) **81b:20035**
- Mutzbauer, Otto Zerlegbarkeitskriterien für Invarianten torsionsfreier abelscher Gruppen des Ranges 2. (Russian summary) **81c:20040**
- Untergruppen und Faktoren torsionsfreier abelscher Gruppen des Ranges 2. **81c:20039**
- Vinsonhaler, C. (with Wickless, W. J.) Injective hulls of torsion-free abelian groups as modules over their endomorphism rings. **81b:20036**
- Wickless, W. J. See Vinsonhaler, C., **81b:20036**

secondary classifications:

- Dlab, Vlastimil On classification of torsion-free abelian groups of finite rank. (**81g:20102**)
- Hales, Alfred W. Groups of height four. (**81f:20039**)

20K20 Torsion free groups, infinite rank

- Arnold, David M. (with Hunter, Roger H.; Walker, Elbert) Direct sums of cyclic valued groups. **81h:20066**
- Benabdallah, K. (with Birtz, A.) p -pure envelopes of pairs in torsion free abelian groups. **81k:20074**
- Birtz, A. See Benabdallah, K., **81k:20074**
- Hunter, Roger H. See Arnold, David M.; et al., **81h:20066**
- Jackett, D. R. The nil-degree of a torsion-free abelian group. **81h:20067**
- Procházka, Ladislav Tensor product and quasipitting of abelian groups. **81g:20101**
- Walker, Elbert See Arnold, David M.; et al., **81h:20066**

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- Heine, J. (with Hensel, H.) Über Pseudodivisibilität und vollständige Zerlegbarkeit torsionsfreier abelscher Gruppen. (**81k:20073**)
- Hensel, H. See Heine, J., (**81k:20073**)
- May, Warren Multiplicative groups under field extension. (**81h:12019**)

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- Bican, Ladislav Splitting abelian groups. **81h:20068**
- A note on the splitting length of a finite direct sum of mixed abelian groups of rank one. **81m:20070**

secondary classifications:

- Lionstra, F. Essential submodules and essential subdirect products. (**81g:13010**)
- Procházka, Ladislav Tensor product and quasipitting of abelian groups. (**81g:20101**)

20K25 Direct sums, direct products, etc.

- Dawley, Eleanor Green A note on abelian p -groups and their endomorphism rings. **81f:20067**
- Huber, Martin On Cartesian powers of a rational group. **81i:20068**
- Ivanov, A. V. Countable direct sums of complete and torsion complete groups. (Russian) **81a:20061**
- Titin, Ju. V. Linearity of generalized free products of abelian linear groups. (Russian. English summary) **81e:20059**
- Wick, Brian D. A classification theorem for SKT-modules. **81j:20075a**
- A projective characterization for SKT-modules. **81j:20075b**

secondary classifications:

- Bican, Ladislav A note on the splitting length of a finite direct sum of mixed abelian groups of rank one. (**81m:20070**)
- Hansen, Jutta Groups whose normal subgroups have minimal supplements. (**81a:20036**)

20K26 Indecomposable groups

- Dlab, Vlastimil On classification of torsion-free abelian groups of finite rank. **81g:20102**

secondary classifications:

- Eklöf, Paul C. ★Set-theoretic methods in homological algebra and abelian groups. (**81j:20004**)

20K27 Subgroups

- Beřvář, Jindřich Abelian groups in which every pure subgroup is an isotype subgroup. **81k:20075**
- Abelian groups in which every Γ -isotype subgroup is a pure subgroup, resp. an isotype subgroup. **81k:20076**
- Hismiev, N. G. Subgroups of finite index of abelian groups. (Russian. Kazakh summary) **81b:20037**
- O'Neill, John D. Covers of abelian groups. **81d:20047**
- Stratton, A. E. (with Webb, M. C.) Abelian groups, nil modulo a subgroup, need not have nil quotient group. **81k:20077**
- Webb, M. C. See Stratton, A. E., **81k:20077**

secondary classifications:

- Lazzeretti, Paolo (with Zanasi, Riccardo; Rossi, Elda) A proof of Pitzer's theorem for abelian groups and its application to two-electron integral transformation. (**81k:81110**)
- Richter, Gerd Einige Ergebnisse aus der Theorie der zyklisch erzeugten modularen Verbände. (**81e:06016**)
- Rossi, Elda See Lazzeretti, Paolo; et al., (**81k:81110**)
- Zanasi, Riccardo See Lazzeretti, Paolo; et al., (**81k:81110**)

20K30 Automorphisms, homomorphisms, endomorphisms, etc.

- Bazzoni, Silvana (with Metelli, C.) On abelian torsion-free separable groups and their endomorphism rings. **81f:20068**
- Clay, James R. Completeness of relative holomorphs of abelian groups. **81k:20078**
- D'Ester, G. Abelian groups with anti-isomorphic endomorphism rings. **81e:20069**
- Hansen, Jutta Radicals in endomorphism rings of primary abelian groups. **81g:20103**
- Metelli, C. See Bazzoni, Silvana, **81f:20068**
- Suter, S. (with Zagler, D.) Dilatationen von abelschen Gruppen. **81e:20061**
- Vlasova, L. I. On the determination of groups by groups of homomorphisms. (Russian. English summary) **81i:20069**
- Zagler, D. See Suter, S., **81e:20061**

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- Legg, M. W. The group of homomorphisms of abelian torsion groups. (**81a:20069**)
- Macedońska-Nowalska, Olga Note on automorphisms of a free abelian group. (**81h:20032**)
- Vinsonhaler, C. (with Wickless, W. J.) Injective hulls of torsion-free abelian groups as modules over their endomorphism rings. (**81b:20036**)
- Wickless, W. J. See Vinsonhaler, C., (**81b:20036**)

20K35 Extensions

- Mader, Adolf A lemma on extensions of abelian groups. **81e:20062**

secondary classifications:

- Tamura, Takayuki Extensions of partially ordered abelian groups. (**81h:06022**)

20K40 Homological and categorical methods

- Cellars, R. See Irwin, John M.; et al., **81j:20076**
- Chen, Y. S. On relative torsion products of abelian groups. **81m:20071**
- Irwin, John M. (with Snabb, Thomas; Cellars, R.) The torsion product of totally projective p -groups. **81j:20076**
- Kubert, Daniel S. The $Z/2Z$ cohomology of the universal ordinary distribution. (French summary) **81a:20062**
- Rangaswamy, K. M. An aspect of purity and its dualisation in abelian groups and modules. **81j:20077**
- Salce, Luigi Cotorsion theories for abelian groups. **81j:20078**
- Snabb, Thomas See Irwin, John M.; et al., **81j:20076**
- Stanton, Robert O. Semistable kernels of valued groups. **81j:20079**
- Yahya, S. M. P -neat exact sequences. **81h:20069**

secondary classifications:

- Fay, Temple H. Epireflective subcategories of valued groups. (**81g:18008**)
- Parmigiani, Daniela On the \mathcal{K} -category of the abelian groups in \mathcal{K} . (Italian) (**81j:18013**)

20K45 Topological methods

- Ferens, C. (with Mikusiński, J.) Urysohn's condition and Cauchy sequences. (Russian summary) **81e:20063**
- Mader, Adolf (with Mines, R.) Functorial topologies with totally ordered neighborhood bases. **81k:20079**
- Mikusiński, J. See Ferens, C., **81e:20063**
- Mines, R. See Mader, Adolf, **81k:20079**
- Rendi, B. (with Trandafir, A.) Topologies for complete abelian groups. (Romanian. French and English summaries) **81f:20069**
- Salce, Luigi The λ -inductive topology on abelian p -groups. **81a:20063**
- Trandafir, A. See Rendi, B., **81f:20069**

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- Grunewald, Fritz J. (with Segal, Daniel) On congruence topologies in number fields. (**81e:12017**)
- Istomin, V. V. Cones in abelian groups. (Russian) (**81k:22002**)
- Segal, Daniel See Grunewald, Fritz J., (**81e:12017**)

20K99 None of the above, but in this section

- Bieri, Robert (with Strebel, Ralph) Valuations and finitely presented metabelian groups. **81j:20080**
- Monari Martinez, Elisabetta Some classes of mixed abelian groups of rank 1. (Italian. English summary) **81h:20070**
- Salce, Luigi I_λ -groups and almost totally injective groups. (Italian summary) **81j:20070**
- Strebel, Ralph See Bieri, Robert, **81j:20080**
- Tamura, Takayuki Structure groups of nontorsion abelian groups. **81k:20080**

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- Blum, Andreas Injectivity, projectivity, and the axiom of choice. (81j:04004)
 Feigelson, Shalom The additive groups of rings possessing only finitely many ideals. (81b:16032)
 Kubert, Daniel S. The universal ordinary distribution. (French summary) (81b:12004)
 Seksenbaev, K. S. The lower central series of a wreath product of finitely generated abelian groups. (Russian) (81f:20037)
 Zaicev, D. I. Hypercyclic extensions of abelian groups. (Russian) (81i:20037)

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- Ajmal, Naseem Groupoids with a closure condition. 81i:20071
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- Hoàng Xuân Sinh Gr-categories strictes. (81d:18014)
 Schultz, Barbara Über die induktive Isomorphie endlicher Gruppen. I. (81j:20043)
 Šimurëv, Ja. E. Categorical quasivarieties of quasigroups. (Russian) (81i:20104)

20L13 Mappings of groupoids**20L15 Connections with topology**

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- da Costa Reis, M. Raquel P. Partial residuals in groupoid lattices. I. (81e:06025)
 Ferenc, F. Groupoids of pseudotopomata. (81f:68067)
 Salli, V. N. Associations, connected with homomorphisms of semigroups onto groups. (Russian) (81c:20051)
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- (Fujiwara, Tsuyoshi) See Proceedings: Symposium on Semigroups, (81b:20003)
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Semigroups ★Proceedings of the 3rd Symposium on Semigroups. (81b:20003)

Symposium:

Semigroups ★Proceedings of the 3rd Symposium on Semigroups. (81b:20003)

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- Bean, Dwight R. (with Ehrenfeucht, Andrzej; McNulty, George F.) Avoidable patterns in strings of symbols. 81i:20075
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 Knopfmacher, John ★Analytic arithmetic of algebraic function fields. (81d:10031)
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- Aizenstat, A. Ja. (with Boguta, B. K.) A lattice of varieties of semigroups. (Russian) 81g:20108
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 Egrova, D. P. (with Skornjakov, L. A.) Cascade closure of magnetic monoids. 81d:20049
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Tišenko, A. V. The finiteness of a base of identities for five-element monoids. **81f:20075**

secondary classifications:

Ehrenfeucht, Andrzej (with Silberger, D. M.) Universal terms of the form B^*A^* . (81c:08012)

Malyiev, S. A. The lattice of subvarieties of the variety $\Pi(x_1 \dots x_n = x_1 \dots x_n^{k+1}, xy = yx)$. (Russian) (81f:08011)

Nordahl, T. E. (with Schebllich, H. E.) Projective bands. (81k:08007)

Sapir, M. V. On the lattice of quasivarieties of idempotent semigroups. (Russian) (81h:08010)

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20M10 General structure theory

Anjaneyulu, A. On primary semigroups. **81m:20076**

Ash, Chris The \mathcal{J} -classes of an inverse semigroup. **81f:20076**

Berladskii, S. G. Imbeddability of semigroups in a global supersemigroup over a group. (Russian) **81h:20077**

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Burgess, W. D. Completions of semilattices of cancellative semigroups. **81j:20085**

Byleen, Karl (with Meakin, John; Pastijn, Francis) Building bisimple idempotent-generated semigroups. **81f:20079**

(with Meakin, John; Pastijn, Francis) The double four-spiral semigroup. **81f:20080**

Byrd, R. D. (with Lloyd, J. T.; Stepp, James W.) The automorphism group of the semigroup of finite complexes of a periodic abelian group. **81a:20065**

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Chase, Karen Sandwich semigroups of binary relations. **81b:20040**

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- Pastijn, Francis Semilattices with a transitive automorphism group. (81e:06005)
- Saitô, Tôru Fundamentally linearly ordered semigroups. (81e:06019)
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- Blyth, T. S. A coordinatisation of implicative (semi-)lattices by Baer semigroups. (81a:06003a)
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- Rutbedat, André Représentations sectionnelles des algèbres à produit. (English summary) (81k:18006)
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20M35 Semigroups in automata theory, linguistics, etc. [See also 03D05, 68D30, 68Fxx.]

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20M50 Connections with homological algebra and category theory

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 Luedeman, John K. Morita equivalent semigroups of quotients. (81h:20096)
 Shoji, Kunitaka Self-injective nonsingular semigroups. (81h:20005)
 Trotter, P. G. Nonexistence of coreflections and coproducts in some subcategories of semigroups. (81f:18004)

20M99 None of the above, but in this section

- Berglund, John F. Problems about semitopological semigroups. 81f:20098
 Blyth, T. S. See McAlister, D. B., 81a:20068
 Denes, J. (with Kim, Ki Hang; Roush, F. W.) The commutator subsemigroup of a semigroup of binary relations. 81f:20099
 Kim, Ki Hang See Denes, J.; et al., 81f:20099
 Krivski, P. See Trpenovski, B., 81e:20075
 Luedeman, John K. Closure operations and semigroups of quotients. 81h:20044
 McAlister, D. B. (with Blyth, T. S.) Split orthodox semigroups. 81a:20068
 Orjannikov, A. Ja. Lattice isomorphisms of nonperiodic semigroups with cancellation law. (Russian) 81j:20102
 Reilly, Norman R. A class of regular \ast -semigroups. 81g:20128
 Roush, F. W. See Denes, J.; et al., 81f:20099
 Tichy, Robert F. Polynomial functions over monoids. 81e:20074
 Trpenovski, B. (with Krivski, P.) On reduced λ -2-semigroups. (Macedonian. English summary) 81e:20075
 Vuza, Dan Sur les homomorphismes invariants par rapport à un monoïde. 81k:20102

secondary classifications:

- Banaschewski, Bernhard Brandt groupoids and semigroups. (81g:20105)
 Celakovski, Naum On semigroup associatives. (Macedonian summary) (81a:06002)
 Chajda, Ivan (with Zelinka, Bohdan) Tolerance relations on direct products of monoids and distributive lattices. (Serbo-Croatian summary) (81f:06001)
 Čupona, Gorgi On a representation of algebras in semigroups. (Macedonian summary) (81f:06012)
 Kannan, V. (with Raju, S. Radhakrishneswara) The nonexistence of invariant universal measures of semigroups. (81b:28013)
 Lee, Sin Min On a simple one-element extension of left zero semigroups. (81f:20072)
 McDuff, Dana On the classifying spaces of discrete monoids. (81d:55020)
 Pondělíček, B. The intersection graph of a simply ordered semigroup. (81a:06019)
 Raju, S. Radhakrishneswara See Kannan, V., (81b:28013)
 Ruppert, Wolfgang The structure of semitopological monoids defined on compact connected 3-manifolds. (81e:22008)
 Satyanarayana, M. Totally ordered Archimedean semigroups. (81b:06010)
 Zelinka, Bohdan See Chajda, Ivan, (81f:06001)

20Nxx Other generalizations of groups

20N05 Loops, quasigroups [See also 05Bxx.]

- Bénéteau, Lucien Le quotient de Frattini d'une boucle de Moufang commutative. (English summary) 81f:20100
 Bennett, F. E. (with Mendelsohn, N. S.) On the spectrum of Stein quasigroups. 81g:20129
 Chin, Orin A short note on supernuclear (central) elements of inverse property loops. 81d:20063
 Das, Phulendu Kernel of a homotopy. 81f:20102
 Galkin, V. M. Left distributive finite order quasigroups. (Russian) 81d:20064
 Katsume Miyaoka, Florinda See Pereira da Silva, Clóvis, 81m:20092
 Kepka, Tomáš (with Němec, Petr) Trilinear constructions of quasimodules. 81g:20130
 Commutative Moufang loops and distributive Steiner quasigroups nilpotent of class 3. 81f:20103
 Leong, F. Holomorphy theory of F loops. 81m:20091
 Mendelsohn, N. S. See Bennett, F. E., 81g:20129
 Mubini, A. I. Solution of coefficientless equations in finitely determined quasigroups. (Russian) 81c:20053
 Němec, Petr See Kepka, Tomáš, 81g:20130
 Pelling, M. J. (with Rogers, Douglas G.) Stein quasigroups. II. Algebraic aspects. 81c:20054
 Pereira da Silva, Clóvis (with Katsume Miyaoka, Florinda) Relations among some

classes of quasigroups. **81m:20092**

- Ratiff, Ernest An algebraic system pertaining to a loop. **81k:20103**
 Rogers, Douglas G. See Pelling, M. J., **81c:20054**
 Sands, N. I. Relatively free commutative Moufang loops. (Russian) **81m:20093**
 The structure of CH-quasigroups. (Russian) **81j:20103**
 Santhakumari, C. On quotient loops of normal subloops. **81g:20131**
 Scimemi, Benedetto Bruck loops and their generalizations. (Italian) **81f:20101**
 Sharma, B. L. On the algebraic properties of half-Bol loops. **81j:20104**
 Šimšić, J. E. Categorical quasivarieties of quasigroups. (Russian) **81i:20104**
 Steinberger, Meir On loops with a general weak inverse property. **81g:20132**
 Tentov, V. A. Structurally ordered quasigroups with two nontrivial supports. (Russian) (See **81b:20064**)
 Ušan, Janez ★Kvazigrupe. (Serbo-Croatian) [Quasigroups] **81g:20133**
 Wedel, Jakob The quasihomomorph of a loop. (Russian) **81c:20055**

secondary classifications:

- Beljavskaja, G. B. (with Muratshuzhev, S.) Admissible n -ary quasigroups. II. (Russian) (**81a:20069**)
 Bénéteau, Lucien Topics about 3-Moufang loops and Hall triple systems. (**81j:05035**)
 Deza, M. Finite commutative Moufang loops, related matroids, and association schemes. (**81m:05043**)
 Krapež, A. On solving a system of balanced functional equations on quasigroups. III. (**81h:39012**)
 McKee, Terry A. Generalized equivalence and the foundations of quasigroups. (**81h:03007**)
 McLesh, Mary On the existence of ternary quasigroups with two or eight conjugacy classes. (**81k:05038**)
 Medvedev, Ju. A. Local finiteness of periodic subloops of an alternative PI-ring. (Russian) (**81i:17013**)
 Muratshuzhev, S. See Beljavskaja, G. B., (**81a:20069**)
 Neumaier, Arnold On transitive commutative idempotent quasigroups. (**81c:05016**)
 Strambach, Karl Differenzierbare distributive Quasigruppen. (**81m:22006**)

20N07 Mappings of loops

20N10 Ternary systems (heaps, semiheaps, heapoids, etc.)

- Bahner, È. A. Semiheaps of semilinear mappings. (Russian. Azerbaijani and English summaries) **81j:20105**
 Kim, Ki Hang (with Roush, Fred W.) Ternary semigroups associative on each pair of factors. **81i:20105**
 Roush, Fred W. See Kim, Ki Hang. **81i:20105**

secondary classifications:

- Brinzel, Dan Des catégories et des amas. (**81g:18015**)
 McLesh, Mary On the existence of ternary quasigroups with two or eight conjugacy classes. (**81k:05038**)

20N15 n -ary systems

- Allampić, B. P. On nuclei of n -ary quasigroups. **81f:20102**
 Beljavskaja, G. B. (with Muratshuzhev, S.) Admissible n -ary quasigroups. II. (Russian) **81a:20069**
 Csikány, Béla (with Megyesi, L.) Varieties of idempotent medial n -quasigroups. **81i:20106**
 Kolesnikov, O. V. Reducibility of n -semigroups. (Russian) **81a:20070**
 Inverse n -semigroups. (Russian) **81i:20107**
 Markovski, Smile Imbeddings of n -groups in an n -quasigroup. (Macedonian. English summary) **81d:20065**
 Megyesi, L. See Csikány, Béla, **81i:20106**
 Michalski, Jacek On some functors from the category of n -groups. (Russian summary) **81i:20108**
 Inductive and projective limits of n -groups. (Russian summary) **81i:20109**
 Muratshuzhev, S. See Beljavskaja, G. B., **81a:20069**
 Pap, Endre Some contributions to the theory of n -convex functions. (Serbo-Croatian. English summary) **81d:20066**
 Pop, Maria S. On the reduction of n -groups to groups. (Romanian. English summary) **81d:20067**
 Rusakov, S. A. On a definition of an n -ary group. (Russian. English summary) **81f:20103**
 Stojaković, Zoran (with Ušan, Janez) On n -groupoids. **81f:20104**
 Stojmenovski, Kiril On $[m, n]$ -quasigroups. (Macedonian. English summary) **81d:20068**
 Ušan, Janez See Stojaković, Zoran, **81f:20104**

secondary classifications:

- Artamonov, V. A. Schreier varieties of n -groups and n -semigroups. (Russian) (**81d:08009**)
 Čupona, Gorgi On n -groupoids. (Macedonian summary) (**81h:20071**)
 n -subsemigroups of periodic semigroups. (Macedonian summary) (**81d:20051**)
 Markovski, Smile On a class of semigroups. (Macedonian. English summary) (**81d:20052**)
 Prehn, Renate Injektive Gruppen über Fasttringen. (**81c:16052**)
 Topenčarov, Vladimir V. Sur les $[n]$ -catégories. (Romanian summary) (**81j:18003**)

20N99 None of the above, but in this section

- Gzysiewicz, Andrzej (with Sikorski, Piotr) On some homomorphisms in Ehresmann groupoids. **81i:20110**

On some homomorphisms in product Brandt groupoids. **81i:20111**

- McMullen, J. R. An algebraic theory of hypergroups. **81f:20105**
 (with Price, John F.) Duality for finite abelian hypergroups over splitting fields. **81f:20106**

- Price, John F. See McMullen, J. R., **81f:20106**
 Sikorski, Piotr See Gzysiewicz, Andrzej, **81i:20110**
 Stojaković, Zoran See Ušan, Janez, **81f:20107**
 Timofeenko, G. V. Automorphisms of free groupoids of certain R' -varieties. (Russian) **81m:20094**
 Ušan, Janez (with Stojaković, Zoran) Orthogonal systems of partial operations. (Serbo-Croatian summary) **81f:20107**

secondary classifications:

- Balcer, Marek (with Mika, Andrzej; Pizioń, Tomasz) Quasigroupoid. (Polish. Russian and French summaries) (**81f:20071**)
 Mika, Andrzej See Balcer, Marek; et al., (**81f:20071**)
 Mittas, Jean Hypergroupes fortement canoniques et supérieurement canoniques. (**81m:08010**)
 Pizioń, Tomasz See Balcer, Marek; et al., (**81f:20071**)
 Schein, Boris M. On the theory of inverse semigroups and generalized groups. (See **80m:00066**)

20P05 Probability methods in group theory

22-XX TOPOLOGICAL GROUPS, LIE GROUPS (For transformation groups, see 54H15, 57Sxx, 58-XX. For abstract harmonic analysis, see 43-XX.)

22-01 Elementary exposition, textbooks

- Adams, John Frank ★Лекции по группам Ли. (Russian) [Lectures on Lie groups] **81d:22001**
 Curtis, Morton L. ★Matrix groups. **81c:22001**
 (Kamysanskii, N. R.) See Adams, John Frank, **81d:22001**
 Naimark, M. A. (with Stern, A.) ★Théorie des représentations des groupes. (French) [Theory of group representations] **81b:22001**
 (Oniščik, A. L.) See Adams, John Frank, **81d:22001**
 (Soslinskii, A.) See Naimark, M. A.; et al., **81b:22001**
 Stern, A. See Naimark, M. A., **81b:22001**

secondary classifications:

- Hewitt, Edwin (with Ross, Kenneth A.) ★Abstract harmonic analysis. Vol. I. (**81k:43001**)
 Ross, Kenneth A. See Hewitt, Edwin, (**81k:43001**)

22-02 Advanced exposition (research surveys, monographs, etc.)

- Dieudonné, Jean ★Special functions and linear representations of Lie groups. **81b:22002**
 (Koonwinder, Tom H.) See Representations of locally compact groups with applications. **81k:22001**
 Nummela, Eric C. The completion of a topological group. **81m:22001**
 Amsterdam ★Representations of locally compact groups with applications. Part I, II. **81k:22001**
 Colloquium: Representations of Locally Compact Groups with Applications ★Representations of locally compact groups with applications. Part I, II. **81k:22001**
 Compact groups ★Representations of locally compact groups with applications. Part I, II. **81k:22001**
 Groups ★Representations of locally compact groups with applications. Part I, II. **81k:22001**
 Locally compact groups ★Representations of locally compact groups with applications. Part I, II. **81k:22001**
 Representations of locally compact groups with applications ★Representations of locally compact groups with applications. Part I, II. **81k:22001**

secondary classifications:

- Morris, Sidney A. Duality and structure of locally compact abelian groups... for the layman. (**81a:22003**)
 Schmid, Wilfried Representations of semisimple Lie groups. (**81c:22024**)

22-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- Borel, Armand On the development of Lie group theory. (**81g:01013**)
 On the development of Lie group theory. (**81g:01014**)
 Brauer, Richard ★Collected papers. Vol. III. (**81i:01017c**)
 (Fong, Paul) See Brauer, Richard, (**81i:01017c**)
 Kirchgraber, Urs See Szebehely, Victor; et al., (**81a:01042**)
 Mackey, George W. Origins and early history of the theory of unitary group representations. (See **81j:22001**)
 Harmonic analysis as the exploitation of symmetry—a historical survey. (**81d:01017**)
 (Margulis, G. A.) See Raghunathan, M. S., (**81f:01035a**)
 Nummela, Eric C. The completion of a topological group. (**81m:22001**)

Raghunathan, M. S. The work of G. A. Margulis. (81f:01035a)

Saari, Donald G. See Szebehely, Victor; et al., (81a:01042)

(Stiefel, Eduard L.) See Szebehely, Victor; et al., (81a:01042)

Szebehely, Victor (with Saari, Donald G.; Waldvogel, J.; Kirchgraber, Urs) Eduard L. Stiefel (1909-1978). (81a:01042)

Waldvogel, J. See Szebehely, Victor; et al., (81a:01042)

(Wong, Warren J.) See Brauer, Richard, (81i:01017c)

Obituary:

Stiefel, Eduard L. See Szebehely, Victor; et al., (81a:01042)

22-04 Explicit machine computation and programs (not the theory of computation or programming)

22-06 Proceedings, conferences, etc.

(Eynard, Pierre) See Analyse harmonique sur les groupes de Lie. 81c:22002

(Furst, Jacques) See Analyse harmonique sur les groupes de Lie. 81c:22002

(Lake, G. L.) See Representation theory of Lie groups. 81j:22001

(Schiffmann, Gérard) See Analyse harmonique sur les groupes de Lie. 81c:22002

(Takahashi, Reiji) See Analyse harmonique sur les groupes de Lie. 81c:22002

Analyse harmonique sur les groupes de Lie ★Analyse harmonique sur les groupes de

Lie. II. (French) [Harmonic analysis on Lie groups. II] 81c:22002

Group representations and harmonic analysis ★Group representations and harmonic

analysis. (Japanese) 81m:22002

Harmonic analysis ★Analyse harmonique sur les groupes de Lie. II. (French)

[Harmonic analysis on Lie groups. II] 81c:22002

★Group representations and harmonic analysis. (Japanese) 81m:22002

Lie groups ★Analyse harmonique sur les groupes de Lie. II. (French) [Harmonic

analysis on Lie groups. II] 81c:22002

★Representation theory of Lie groups. 81j:22001

Nancy-Strasbourg ★Analyse harmonique sur les groupes de Lie. II. (French) [Harmonic

analysis on Lie groups. II] 81c:22002

Oxford ★Representation theory of Lie groups. 81j:22001

Representation theory of Lie groups ★Representation theory of Lie groups. 81j:22001

Seminaire:

Analyse Harmonique sur les Groupes de Lie ★Analyse harmonique sur les groupes

de Lie. II. (French) [Harmonic analysis on Lie groups. II] 81c:22002

Symposium:

Group Representations and Harmonic Analysis ★Group representations and

harmonic analysis. (Japanese) 81m:22002

SRC/LMS, Representation theory of Lie groups ★Representation theory of Lie

groups. 81j:22001

secondary classifications:

(Baou, N. G.) See Problems in the general theory of relativity and theory of group representations. (81i:83004)

(Mason, Alan) See Problems in the general theory of relativity and theory of group representations. (81i:83004)

Problems in the general theory of relativity and theory of group representations

★Problems in the general theory of relativity and theory of group representations.

(81i:83004)

Proceedings of the P. N. Lebedev Physics Institute ★Problems in the general theory of

relativity and theory of group representations. (81i:83004)

22Axx Topological algebraic systems (For topological rings and fields, see 12Jxx, 13Jxx, 16A80; for dual spaces of operator algebras and topological groups, see 47D35.)

22A05 Structure of general topological groups

Dikranjan, Dikran (with Prodanov, Ivan) Totally minimal topological groups. (Bulgarian summary) 81c:22003

Fay, Temple H. (with Thomas, Barbara V. Smith) Remarks on the free product of two Hausdorff groups. 81c:22004

Hoffmann, Burkhard A compact contractible topological group is trivial. 81c:22005

Hudson, Sigmond N. On the topology and geometry of arcwise connected, finite-dimensional groups. 81c:22006

Intoni, V. V. Cones in abelian groups. (Russian) 81k:22002

Kallman, Robert R. A uniqueness result for the infinite symmetric group. 81c:22007

Morris, Sidney A. (with Nickolas, Peter) The extension of norms on subgroups of free topological groups. 81g:22001

Nickolas, Peter See Morris, Sidney A., 81g:22001

Nunnala, Eric C. Cayley's theorem for topological groups. 81i:22001

Prodanov, Ivan See Dikranjan, Dikran, 81c:22003

Thomas, Barbara V. Smith See Fay, Temple H., 81c:22004

secondary classifications:

Cattaneo, U. Abelian extensions of topological vector groups. (81h:46001)

Nunnala, Eric C. The completion of a topological group. (81m:22001)

22A10 Analysis on general topological groups

Čeršić, V. M. The equicontinuity of the representations of groups. (Russian) 81a:22001

Constantinescu, Corneliu Spaces of multipliable families in Hausdorff topological

groups. 81h:22001

Milnes, Paul Continuity properties of compact right topological groups. 81b:22003

secondary classifications:

Hejman, J. Boundedness and weak boundedness in topological vector groups. (81m:46012)

22A15 Structure of topological semigroups

Hunter, R. P. Total subgroups lying in the centralizer of the group of units. 81m:22003

Jungheun, H. D. The Maak compactification of a dense subsemigroup. 81b:22004

Lau, August Yin Wa Images of compact 0-dimensional semigroups. 81f:22001

Ruppert, Wolfgang The structure of semitopological monoids on compact connected manifolds. 81f:22002

The structure of semitopological monoids defined on compact connected 3-manifolds. 81c:22008

Šlipol, Ján On convergence groupoids. (Russian summary) 81k:22003

secondary classifications:

Berglund, John F. Problems about semitopological semigroups. (81f:20096)

Grossman, Marvin W. Function spaces and fixed point properties: a Galois connection. (81i:46110)

Zhu, Marek Cezary ★Continuous and differentiable iteration semigroups. (81c:39006)

22A20 Analysis on topological semigroups

Hoo, C. S. (with Shum, K. P.) Ideals and radicals in topological semigroups. 81c:22001

Jungheun, H. D. C^* -algebras of functions on direct products of semigroups. 81m:22004

Precompans, Anca Almost automorphic functions on topological semigroups. 81m:22005

Shum, K. P. See Hoo, C. S., 81c:22001

secondary classifications:

Kayano, Takasi Almost periodic functions on topological semigroups. (81c:43006)

Kranz, Przemysław Extension of additive functionals and semicharacters on commutative semigroups. (81h:20099)

Litvinov, G. L. Generalized shift operators and their representations. (Russian) (81c:43017)

Milnes, Paul (with Pym, J. S.) Function spaces on semitopological semigroups. (81i:43014)

Mitchell, Theodore Invariant means and analytic actions. (81m:43001)

Muhlin, V. V. Invariant measures on semigroups and imbedding of topological semigroups in topological groups. (Russian) (81k:43003)

Paterson, Alan L. T. Amenability and locally compact semigroups. (81b:43001)

Pym, J. S. See Milnes, Paul, (81i:43014)

Sleijpen, Gérard L. G. The support of the Wiener algebra on strips. I, II. (81j:43007)

22A25 Representations of general topological groups and semigroups

Kawai, Toru An application of nonstandard analysis to characters of groups of continuous functions. 81i:22002

Ruppert, Wolfgang On semigroup compactifications of topological groups. 81f:22003

secondary classifications:

Anderson, James A. Characters of commutative semigroups. I. (81m:20090a)

Characters of commutative semigroups. II. Topological semigroups. (81m:20090b)

Characters of commutative semigroups. III. Bicharacters. (81m:20090c)

Powłaska, Zbigniew Über stetige Lösungen der Funktionalgleichung $\varphi(x+y) = F(\varphi(x), \varphi(y))$. (81c:39006)

22A26 Topological semilattices, lattices and applications [See also 06B30, 06F30.]

secondary classifications:

Lau, August Yin Wa Images of compact 0-dimensional semigroups. (81f:22001)

Lawson, Jimmie D. Algebraic conditions leading to continuous lattices. (81g:06002)

Steele, James W. Topological semilattices with enough closed subsemilattices to separate points. (81m:06009)

22A30 Other topological algebraic systems and their representations

Redfield, R. H. Nonsecular, locally compact TRL groups. 81c:22009

Strambach, Karl Differenzierbare distributive Quasigruppen. 81m:22006

secondary classifications:

Fattorini-Barnaba, Maurizio Natural equivalences of topologies and semilattices.

(Italian. English summary) (81c:54003)

Kijajin, A. V. The connected component of a locally compact open Artinian ring. (Russian) (81c:16056)

22A99 None of the above, but in this section

Battle Nicolas, Nadal (with Grané Manlleu, José) The Redfield topology of the lattice-ordered group of regular measures on a locally compact σ -compact topological space. (Spanish) 81i:22003

Borges, Carlos R. Free groups, symmetric and reduced products. 81a:22002

Grané Manlleu, José See Battle Nicolas, Nadal, 81i:22003

Yuan, John A note on angular semigroups. 81d:22002

secondary classifications:

- Cenzer, Douglas The stability problem for transformations of the circle. (81b:58023)
 Hartmann, Klaus [FIA]_S Gruppen und Hypergruppen. (English summary) (81c:43002)
 Hofer, Robert D. Near-rings of continuous functions on disconnected groups. (81b:16026)
 Huber, Martin (with Meier, Willi) Linearly compact groups. (81c:55005)
 Mauldin, R. Daniel On the Borel subspaces of algebraic structures. (81i:54027)
 Meier, Willi See Huber, Martin, (81c:55005)
 Ordman, Edward T. (with Thomas, Barbara V. Smith) Sequential conditions and free topological groups. (81c:54042)
 Pachl, Jan K. A note on the Orlicz-Pettis theorem. (81c:28010)
 Thomas, Barbara V. Smith See Ordman, Edward T., (81c:54042)

22Bxx Locally compact abelian (LCA) groups**22B05 General properties and structure of LCA groups**

- Mathew, J. (with Nadkarni, M. G.) On systems of imprimitivity on locally compact abelian groups with dense actions. (French summary) 81j:22002
 Morris, Sidney A. Duality and structure of locally compact abelian groups... for the layman. 81a:22003
 Nadkarni, M. G. See Mathew, J., 81j:22002

22B10 Structure of group algebras of LCA groups**22B99 None of the above, but in this section****22C05 Compact groups**

- Đoković, Dragomir Ž. Relations between reflections in $U(n)$. 81b:22005
 Herfurth, Wolfgang N. Compact torsion groups and finite exponent. 81c:22010

secondary classifications:

- Bopp, Nicole Les distributions de type positif relativement à un groupe fini d'isométries. (81c:22018)
 Đoković, Dragomir Ž. Topological reflection groups. (81i:51006)
 Losert, Viktor (with Rindler, Harald) A note on random walks on compact groups. (81d:60069)
 Rindler, Harald See Losert, Viktor, (81d:60069)

22Dxx Locally compact groups and their algebras**22D05 General properties and structure of locally compact groups**

- Čarin, V. S. See Protasov, I. V., 81c:22012 and Poleček, V. M., 81b:22003
 Feiman, M. Ju. See Mubini, Ju. N., 81d:22004
 Gallardo, Léonard (with Schott, René) Un théorème de structure pour les sous-groupes fermés, connexes des groupes extensions compactes de groupes nilpotents. 81d:22003
 Helmer, Dietrich Continuity of locally compact group actions with measurable orbit maps. 81c:22002
 Koroleva, T. M. Topological groups with complemented infinite closed subgroups. (Russian) 81g:22002
 Mubini, Ju. N. Locally compact groups of finite rank. (Russian) 81f:22004
 Mubini, Ju. N. (with Feiman, M. Ju.) Solvable topological groups of Mal'cev type. (Russian) 81d:22004
 Topological groups whose nonnilpotent subgroups are all invariant. (Russian) 81h:22002
 Palmer, T. W. Classes of nonabelian, noncompact, locally compact groups. 81j:22003
 Pilipenko, Ju. N. Topological groups with Sylow subgroups of rank one. (Russian) 81c:22011
 Poleček, V. M. (with Čarin, V. S.) A class of locally compact solvable groups. (Ukrainian. English and Russian summaries) 81h:22003
 An open mapping. (Russian) 81d:22005
 Protasov, I. V. (with Čarin, V. S.) Projections of topological groups. (Russian) 81c:22012
 Local theorems for topological groups. (Russian) 81c:22013
 Rosenblatt, Joseph A distal property of groups and the growth of connected locally compact groups. 81c:22014
 Rudenko, V. A. Topological groups with a minimality condition for noncomplementable subgroups. (Russian) 81j:22004
 Schlichting, Günter Polynomidentitäten und Permutationsdarstellungen lokalkompakter Gruppen. 81d:22006
 Schott, René See Gallardo, Léonard, 81d:22003
 Staruhina, E. N. Weak minimality condition in topological groups. (Russian) 81a:22004
 Wang, S. P. On S -subgroups of locally compact groups. 81c:22015

secondary classifications:

- Redfield, R. H. Nonsecular, locally compact TRL groups. (81c:22009)
 Wang, S. P. On density properties of certain subgroups with boundedness conditions. (81j:22014)

22D10 Unitary representations of locally compact groups

- Baggett, Larry (with Taylor, Keith) A sufficient condition for the complete reducibility of the regular representation. 81f:22005
 Carey, A. L. Group representations in reproducing kernel Hilbert spaces. 81f:22006
 van Dijk, G. Group representations: a first introduction and survey. (See 81k:22001)

- Felix, Rainer Über Integralzerlegungen von Darstellungen nilpotenter Liegruppen. (English summary) 81d:22007

- Flato, Moshe Theory of analytic vectors and applications. 81j:22005

- Funakoshi, Shunsuke On representations of discrete product groups. 81a:22005

- On representations of non-type I groups. 81b:22006

- Gviliiani, A. D. Representations of the group of local translations of the space k^n , where k is a non-Archimedean local field. (Russian) 81k:22004

- Hannabuss, Keith Representations of nilpotent locally compact groups. 81c:22016

- Heurich, Rolf Wim Weak Frobenius reciprocity and compactness conditions in topological groups. 81c:22003

- Koornwinder, Tom H. Representations of locally compact abelian groups. (See 81k:22001)

- Magnin, Louis Vecteurs analytiques dans les représentations unitaires des groupes localement compacts connexes. (English summary) 81j:22006

- Pytlík, Tadeusz A Plancherel measure for the discrete Heisenberg group. 81c:22004

- Rallis, Stephen (with Schiffmann, Gérard) Weil representation. I. Intertwining distributions and discrete spectrum. 81j:22007

- Schiffmann, Gérard See Rallis, Stephen, 81j:22007

- Sorkin, Rafael D. Erratum: "The triviality of continuous multipliers for the real line" [Internat. J. Theoret. Phys. 17 (1978), no. 5, 369-376; MR 80c:22011]. 81d:22008

- Taylor, Keith See Baggett, Larry, 81f:22005

secondary classifications:

- Agrawal, Vishnu K. Wigner-Eckart theorem for an arbitrary group or Lie algebra. (81i:81032)

- Chou, Ching Sung Minimally weakly almost periodic groups. (81f:43009)

- Cowling, Michael Sur les coefficients des représentations unitaires des groupes de Lie simples. (81c:22019)

- Kehlet, Esben T. On extensions of locally compact groups and unitary groups. (81d:22009)

- (Koornwinder, Tom H.) See Representations of locally compact groups with applications. (81d:22001)

- Lion, Gérard (with Vergne, Michèle) ★The Weil representation, Maslov index and theta series. (81j:58075)

- Palmer, T. W. Classes of nonabelian, noncompact, locally compact groups. (81j:22003)

- Riley, G. W. Approximations and the spectral properties of measure-preserving group actions. (81b:28014)

- Schlichting, Günter Polynomidentitäten und Permutationsdarstellungen lokalkompakter Gruppen. (81d:22006)

- Thomas, Erik G. F. Integral representations of invariant reproducing kernels. (81c:46041)

- Vergne, Michèle See Lion, Gérard, (81j:58075)

- Amsterdam ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

- Colloquium: Representations of Locally Compact Groups with Applications ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

- Compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

- Groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

- Locally compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

- Representations of locally compact groups with applications ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

22D12 Other representations of locally compact groups

- Blanc, Philippe Projectifs dans la catégorie des G -modules topologiques. (English summary) 81m:22007

- Gurarie, David Banach uniformly continuous representations of Lie groups and algebras. 81j:22008

- Magid, Andy R. Faithfully representable analytic groups. 81f:22007

- Representative functions on simply connected solvable groups. 81f:22008

- Plonka, Ernest Remarks on characters of discrete nilpotent groups. 81a:22006

- Sakai, Kōkichi Quasi-negative definite functions and certain classes of cyclic unitary representations of groups in Π_λ -spaces. 81g:22003

secondary classifications:

- Falkowski, B.-J. Infinitely divisible positive functions on $SO(3) \otimes \mathbb{R}^2$. (81j:43013)
 Halpern, Herbert Spectral representations for abelian automorphism groups of von Neumann algebras. (81c:46056)

22D15 Group algebras of locally compact groups

- Crombez, G. (with Govaerts, W.) A characterization of certain weak*-closed subalgebras of $L_\infty(G)$. 81j:22009

- Govaerts, W. See Crombez, G., 81j:22009

secondary classifications:

- Dauks, John Enveloping W^* -algebras. (81a:46077)
 Feichtinger, Hans G. Gewichtsfunktionen auf lokalkompakten Gruppen. (81m:43004)
 Ludwig, Jean A class of symmetric and a class of Wiener group algebras. (81a:43007)
 Stegmüller, Ulrich Centers of group algebras. (81b:43002)

22D20 Representations of group algebras

secondary classifications:

- Jenkins, J. W. Invariant functionals and polynomial growth. (81m:43002)

22D25 C^* -algebras and W^* -algebras arising from group representations [See also 46Lxx.]

- Grünberg, Edmond E. On group representations whose C^* -algebra is an ideal in its von Neumann algebra. (French summary) **81b:22007**
 Kaniuth, Eberhard Primitive ideal spaces of groups with relatively compact conjugacy classes. **81f:22009**
 Mayer-Lindenberg, Fritz Invariante Spuren auf Gruppenalgebren. (English summary) **81b:22008**

secondary classifications:

- Choda, Marie (with Watatani, Yasuo) Conditions for inner amenability of groups. (81a:43001)
 Elliott, George A. Some simple C^* -algebras constructed as crossed products with discrete outer automorphism groups. (81j:46102)
 Furukoshi, Shunsuke On representations of discrete product groups. (81a:22005)
 Ludwig, Jean Polynomial growth and ideals in group algebras. (81e:43012)
 Nakagami, Yoshiomi Some remarks on crossed products of von Neumann algebras by Kac algebras. (81f:46080)
 Sauvageot, Jean-Luc Idéaux primitifs induits dans les produits croisés. (81a:46080)
 Watatani, Yasuo See Choda, Marie, (81a:43001)

22D30 Induced representations

- Castrigiano, D. P. L. (with Henrichs, Rolf Wim) Systems of covariance and subrepresentations of induced representations. **81j:22010**
 Cattaneo, U. On Mackey's imprimitivity theorem. **81b:22009**
 Henrichs, Rolf Wim See Castrigiano, D. P. L., **81j:22010**
 Kahle, Eberhard T. On extensions of locally compact groups and unitary groups. **81d:22009**
 Koornwinder, Tom H. (with van der Meer, H. A.) Induced representations of locally compact groups. (See **81k:22001**)
 Mackey, George W. Induced representations. (See **81j:22001**)
 van der Meer, H. A. Representations of semidirect products. (See **81k:22001**)
 See also Koornwinder, Tom H., (See **81k:22001**)
 Rieffel, Marc A. Unitary representations of group extensions; an algebraic approach to the theory of Mackey and Blattner. **81h:22004**
 Rousseau, Ronny Un système d'induction pour des groupes topologiques. (English summary) **81m:22008**
 Schochetman, I. The dual topology of certain group extensions. **81e:22005**

secondary classifications:

- Baggett, Larry (with Taylor, Keith) A sufficient condition for the complete reducibility of the regular representation. (81f:22005)
 Henrichs, Rolf Wim Weak Frobenius reciprocity and compactness conditions in topological groups. (81e:22003)
 Mathew, J. (with Nadkarni, M. G.) On systems of imprimitivity on locally compact abelian groups with dense actions. (French summary) (81j:22002)
 Nadkarni, M. G. See Mathew, J., (81j:22002)
 Pinzon, G. (with Simon, Jacques) Extensions of representations and cohomology. (81k:22011)
 Sauvageot, Jean-Luc Idéaux primitifs induits dans les produits croisés. (81a:46080)
 Simon, Jacques See Pinzon, G., (81k:22011)
 Taylor, Keith See Baggett, Larry, (81f:22005)

22D35 Duality theorems

- Ishioji, Kiyoshi (with Nakagami, Yoshiomi) On a strong duality for separable locally compact groups. **81j:22011**
 Lubotzky, Alexander Tannaka duality for discrete groups. **81m:22009**
 Maucci, Giancarlo (with Picardello, Massimo A.) Noncompact unimodular groups with purely atomic Plancherel measures. **81h:22005**
 Nakagami, Yoshiomi See Ishioji, Kiyoshi, **81j:22011**
 Picardello, Massimo A. See Maucci, Giancarlo, **81h:22005**
 Schmidt, Janusz The duality theorems. Cyclic representations. Langlands conjectures. **81j:22012**
 Tatsuuma, Nobuhiko Duality theorem for locally compact groups and some related topics. (French summary) **81b:22010**

secondary classifications:

- Beldar, J. On a regularity condition for group algebras of nonabelian locally compact groups. (81m:43003)
 Combes, Alain A factor of type II₁ with countable fundamental group. (81j:46099)
 Enock, Michel (with Schwartz, Jean-Marie) Produit croisé d'une algèbre de von Neumann par une algèbre de Kac. II. (81m:46084)
 Gaudier, Stanley P. Families of completely positive mappings. (81k:47059)
 Imai, Shō (with Takai, Hiroshi) On a duality for C^* -crossed products by a locally compact group. (81h:46090)
 Schwartz, Jean-Marie See Enock, Michel, (81m:46084)
 Takai, Hiroshi See Imai, Shō, (81h:46090)

22D40 Ergodic theory on groups [See also 28Dxx and 43A60.]

- Aoki, Nobuo Group automorphisms with finite entropy. **81e:22006**
 Dani, Shrikishna G. A simple proof of Borel's density theorem. **81m:22010**
 Iwasaki, Anzelm Weak convergence and weighted averages for groups of operators. **81e:22007**
 Schreiber, Bertram M. p -adic linear groups with ergodic affine transformations. **81b:22011**

Veech, William A. Weakly almost periodic functions on semisimple Lie groups. **81b:22012**

- Zimmer, Robert J. Induced and amenable ergodic actions of Lie groups. **81b:22013**
 Amenable pairs of groups and ergodic actions and the associated von Neumann algebras. **81e:22008**
 On the cohomology of ergodic group actions. **81m:22011**

secondary classifications:

- De Rigi, Dennis F. (with Markley, Nelson G.) The structure of codimension one distal flows with nontrivial isotropy. (81a:58044)
 Feldman, Jacob (with Hahn, Peter; Moore, Calvin C.) Sections for group actions, and some applications. (French summary) (81h:28013)
 (with Rudolph, Daniel J.; Moore, Calvin C.) Affine extensions of a Bernoulli shift. (81a:28014)
 Hahn, Peter See Feldman, Jacob; et al., (81h:28013)
 Heib, M. P. Lie theory and applications to entropy and approximation. (81f:58008)
 Helmer, Dietrich Continuity of locally compact group actions with measurable orbit maps. (81e:22002)
 Nelson, Henry Compact groups with ordered duals. VII. (81m:43013)
 Markley, Nelson G. See De Rigi, Dennis F., (81a:58044)
 Moore, Calvin C. See Feldman, Jacob; et al., (81a:28014) and Feldman, Jacob; et al., (81h:28013)
 Parthasarathy, Kalyanaswaram Rangachari (with Plymen, R. J.) On the outer and inner invariants of Connes. (81h:46084)
 Plymen, R. J. See Parthasarathy, Kalyanaswaram Rangachari, (81h:46084)
 Raghuathan, M. S. A proof of Oseledec's multiplicative ergodic theorem. (81f:60016)
 Rudolph, Daniel J. See Feldman, Jacob; et al., (81a:28014)
 Sauvageot, Jean-Luc Image d'un homomorphisme et flot des poids d'une relation d'équivalence mesurée. (81h:46082)

22D45 Automorphism groups of locally compact groups

- Aoki, Nobuo Expansive automorphisms of locally compact solvable groups. **81e:22009**

secondary classifications:

- Hartmann, Klaus (with Henrichs, Rolf Wim; Lasser, Rupert) Duals of orbit spaces in groups with relatively compact inner automorphism groups are hypergroups. (81h:43006)
 Henrichs, Rolf Wim See Hartmann, Klaus; et al., (81h:43006)
 Lasser, Rupert See Hartmann, Klaus; et al., (81h:43006)
 van der Meer, H. A. Representations of semidirect products. (See **81k:22001**)

22D99 None of the above, but in this section

22Exx Lie groups (For the topology of Lie groups and homogeneous spaces, see 57Sxx, 57Txx; for analysis thereon, see 43A80, 43A85, 43A90.)

22E05 Local Lie groups [See also 34-XX, 35-XX, 58H05.]

- Reitberger, Heinrich Pilgerschritt-Transformation und verallgemeinerte Liegruppen. **81m:22012**

secondary classifications:

- Bytev, V. O. Some possible state equations of a purely mechanical continuum. (Russian) (81f:76033)
 Garayev, K. G. (with Pavlov, V. G.) Continuous groups of transformations in a problem of sensitivity of systems with distributed parameters. (Russian) (81m:93025)
 Kalnins, E. G. (with Manocha, H. L.; Miller, Willard, Jr.) The Lie theory of two-variable hypergeometric functions. (81c:33010)
 Leach, P. G. L. The complete symmetry group of the one-dimensional time-dependent harmonic oscillator. (81e:70010)
 Manocha, H. L. See Kalnins, E. G.; et al., (81c:33010)
 Miller, Willard, Jr. See Kalnins, E. G.; et al., (81c:33010)
 Niederbichler, Günter See Reich, Ludwig, (81h:39005)
 Pavlov, V. G. See Garayev, K. G., (81m:93025)
 Reich, Ludwig (with Niederbichler, Günter) Über multiplikative Funktionen von Automorphismen des Potenzreihenringes und invariante Funktionen analytischer Iterationen. (81h:39005)

22E10 General properties and structure of complex Lie groups [See also 32M05.]

- Alekseevskii, A. V. Maximal solvable subgroups of Lie groups. (Russian) **81g:22004**
 Đoković, Dragomir Ž. On the exponential map in classical Lie groups. **81g:22005**
 Koch, Richard M. (with Lowenthal, Franklin) Uniform finite generation of complex Lie groups of dimension two and three. **81h:22006**
 Lowenthal, Franklin See Koch, Richard M., **81h:22006**

secondary classifications:

- Čekalov, I. V. Primitive subalgebras of the complex Lie algebras. (Russian. English summary) (81f:17002)
 Đoković, Dragomir Ž. (with Malzan, Jerry) Products of reflections in $U(p, q)$. (81g:20004)
 On conjugacy classes of elements of finite order in compact or complex semisimple Lie groups. (81h:20052)
 Magid, Andy R. Faithfully representable analytic groups. (81f:22007)

Representative functions on simply connected solvable groups. (81f:22006)
Moduli for analytic left algebraic groups. (81f:14029)

- Makzan, Jerry See Boković, Dragomir Z., (81g:20004)
Mizuhara, Akira The group of isometries of a left invariant Hermitian metric on a complex Lie group. (81g:53053)
Reich, Ludwig Probleme der analytischen Iteration bei formal-biholomorphen und bei kontrahierenden Abbildungen. (81h:32009)

22E15 General properties and structure of real Lie groups

- Écalle, Jean Synthèse harmonique explicite sur le groupe des germes de transformations holomorphes tangentes à l'identité. (English summary) 81f:22010
Greenleaf, F. P. (with Moskowitz, Martin) Groups of automorphisms of Lie groups: density properties, bounded orbits, and homogeneous spaces of finite volume. 81m:22013
Macdonald, I. G. Algebraic structure of Lie groups. (See 81j:22001)
Millman, Richard S. (with Parker, George D.) The $\text{Pin}(n)$ group as a covering group of $O(n)$. 81j:22013
Moore, Calvin C. Amenable subgroups of semisimple groups and proximal flows. 81h:22007
Moskowitz, Martin See Greenleaf, F. P., 81m:22013
Parker, George D. See Millman, Richard S., 81j:22013
Yokota, Ichiro Explicit isomorphism between $\text{SU}(4)$ and $\text{Spin}(6)$. 81g:22006
Subgroups of type A_2 -series in the exceptional Lie groups G_2 , F_4 and E_6 . 81g:22007

secondary classifications:

- Krueckel, S. L. Subgroups of the orthogonal group containing the group of quasidiagonal matrices. (Russian) (81g:20098)
Marinov, M. S. Invariant volumes of compact groups. (81m:53053)
Shukuzawa, Osamu (with Yokota, Ichiro) Noncompact simple Lie group $E_{6(6)}$ of type E_6 . (81g:22023a)
(with Yokota, Ichiro) Noncompact simple Lie groups $E_{6(-14)}$ and $E_{6(2)}$ of type E_6 . (81g:22023b)
Yokota, Ichiro See Shukuzawa, Osamu, (81g:22023a) and Shukuzawa, Osamu, (81g:22023b)

22E20 General properties and structure of other Lie groups

- Goto, Morikuni Cartan subgroups of a Lie group. 81d:22010
Wang, S. P. On density properties of certain subgroups with boundedness conditions. 81g:22014

22E25 Nilpotent and solvable Lie groups

- Boidol, J. \ast -regularity of exponential Lie groups. 81h:22005
Chang, Weita Global solvability of bi-invariant differential operators on solvable Lie groups. 81d:22011
Felix, Rainer Ein kurzer Beweis für den Satz von Schiffmann mit Hilfe von Kirillov's Charakterformel. 81h:22004
Fujiwara, Hidemori Affine structures of some solvable Lie groups. 81m:22016
Affine structures of some solvable Lie groups. 81m:22016
Grélaud, Gérard Représentations unitaires des groupes de Lie résolubles. (English summary) 81f:22011
Jenkins, J. W. Dilations and gauges on nilpotent Lie groups. 81e:22017
Milovanov, M. V. Solvable Lie groups with a given uniform subgroup. (Russian. English summary) 81g:22008
Pedersen, Niels Vigand Semicharacters and solvable Lie groups. 81j:22015
Penney, Richard C. Lie cohomology of representations of nilpotent Lie groups and holomorphically induced representations. 81h:22005
Pukanszky, L. On Kirillov's character formula. 81b:22014
Tolimieri, R. Heisenberg manifolds and theta functions. 81d:22012
Yamaguchi, Saturn On complete affinely flat structures of some solvable Lie groups. 81m:22014

Supplements to: "On complete affinely flat structures of some solvable Lie groups" [Mem. Fac. Sci. 33 (1979), no. 2, 209–218; MR 81m:22014] and an application to nilpotent Lie groups of dimension < 5 . 81m:22015

secondary classifications:

- Auslander, Louis (with Tolimieri, R.) Is computing with the finite Fourier transform pure or applied mathematics? (81e:42020)
Boidol, J. On a regularity condition for group algebras of nonabelian locally compact groups. (81m:43003)
Eguchi, Masaki Asymptotic expansions of Eisenstein integrals and Fourier transform on symmetric spaces. (81e:43022)
Fried, David (with Goldman, W.; Hirsch, Morris) Affine manifolds and solvable groups. (81f:57018)
Geller, Daryl Some results in H^p theory for the Heisenberg group. (81j:32009)
Fourier analysis on the Heisenberg group. I. Schwartz space. (81g:43008)
Goldman, W. See Fried, David; et al., (81f:57018)
Goldman, Roe Approximating Lie algebras of vector fields by nilpotent Lie algebras. (81e:17009)
Hirsch, Morris See Fried, David; et al., (81f:57018)
Kawazoe, Takeshi An analogue of Paley-Wiener theorem on rank 1 semisimple Lie groups. I, II. (81e:43016)
Krantz, Steven G. Geometric Lipschitz spaces and applications to complex function theory and nilpotent groups. (81j:32020)
Magid, Andy R. Representative functions on simply connected solvable groups. (81f:22008)

Rosenberg, Jonathan Realization of square-integrable representations of unimodular Lie groups on L^2 -cohomology spaces. (81k:22012)
Tolimieri, R. See Auslander, Louis, (81e:42020)

22E27 Representations of nilpotent and solvable Lie groups (special orbital integrals, non-Type I representations, etc.)

- Charbonnel, Jean-Yves Sur les semi-caractères des groupes de Lie résolubles connexes. (English summary) 81g:22009
La formule de Plancherel pour un groupe de Lie résoluble connexe. II. 81m:22017
Chudnovsky, David V. Les fonctions thêta du point de vue de la théorie des représentations et les matrices S complètement X -symétriques correspondantes. (English summary) 81m:22018
Corwin, L. (with Greenleaf, F. P.) Fourier transforms of smooth functions on certain nilpotent Lie groups. 81f:22012
Greenleaf, F. P. See Corwin, L., 81f:22012
Lion, Gérard Groupes de Lie résolubles et indices de Maslov. (English summary) 81m:22019
Moscovici, Henri A vanishing theorem for L^2 -cohomology in the nilpotent case. 81e:22018
Penney, Richard C. Harmonically induced representations on nilpotent Lie groups and automorphic forms on nilmanifolds. 81h:22008
Rothschild, Linda Press Local solvability of left invariant differential operators on the Heisenberg group. 81h:22006

secondary classifications:

- Charfi, Abdelwahab Sur les extensions et la cohomologie des représentations des groupes $H_n \wedge \text{SO}(n)$. (81h:22013)
Corwin, L. (with Greenleaf, F. P.) Singular Fourier integral operators and representations of nilpotent Lie groups. (81f:46055)
Eymard, Pierre (with Terp, Marianne) La transformation de Fourier et son inverse sur le groupe des $ax + b$ d'un corps local. (81f:22027)
Geller, Daryl Local solvability and homogeneous distributions on the Heisenberg group. (81h:35004)
Greenleaf, F. P. See Corwin, L., (81f:46055)
Helffer, B. (with Nourrigat, Jean François) Opérateurs différentiels hypoelliptiques et groupes nilpotents. (81e:58058)
(with Nourrigat, Jean François) Caractérisation des opérateurs hypoelliptiques homogènes invariants à gauche sur un groupe de Lie nilpotent gradué. (81h:35034)
Nourrigat, Jean François See Helffer, B., (81e:58058) and Helffer, B., (81h:35034)
Pukanszky, L. On Kirillov's character formula. (81b:22014)
Terp, Marianne See Eymard, Pierre, (81f:22027)

22E30 Analysis on real and complex Lie groups [See also 33A75, 43–XX.]

- Clerc, Jean-Louis Transformation de Fourier sphérique des espaces de Schwartz. (English summary) 81j:22016
DeGeorge, David L. (with Wallach, Nolan R.) Limit formulas for multiplicities in $L^2(\Gamma \backslash G)$. II. The tempered spectrum. 81g:22010
Diedonné, Jean Gelfand pairs and spherical functions. 81f:22013
Enright, Thomas J. Relative Lie algebra cohomology and unitary representations of complex Lie groups. 81h:22007
Fegan, H. D. The heat equation and modular forms. 81k:22006
Gross, Kenneth L. (with Holman, Wayne J., III; Kunze, Ray A.) A new class of Bessel functions and applications in harmonic analysis. 81h:22009
Helgason, Sigurdur Invariant differential operators and eigenspace representations. (See 81j:22001)
Holman, Wayne J., III See Gross, Kenneth L.; et al., 81h:22009
Howe, Roger E. On the role of the Heisenberg group in harmonic analysis. 81h:22010
Kislyński, Jan On semigroups generated by differential operators on Lie groups. 81e:22010
Konjushina, T. N. Harmonic analysis on the group $\text{SL}(2, \mathbb{H})$ of quaternionic matrices. (Russian) 81e:22019
Kunze, Ray A. See Gross, Kenneth L.; et al., 81h:22009
Mamiada, Masachi On singularities of the Harish-Chandra expansion of the Eisenstein integral on $\text{Spin}(4, 1)$. 81f:22014
Mantero, Anna Maria Modified Poisson kernels on rank one symmetric spaces. 81f:22015
Ogden, R. D. (with Vági, S.) Harmonic analysis of a nilpotent group and function theory of Siegel domains of type II. 81f:22016
Osborne, M. Scott (with Warner, Garth) Multiplicities of the integrable discrete series: the case of a nonuniform lattice in an R -rank one semisimple group. 81g:22011
Rais, Mastapha Opérateurs différentiels bi-invariants (d'après M. Duflo). 81d:22013
Rossi, Hugo Holomorphic actions of $\text{Sp}(n, \mathbb{R})$ with noncompact isotropy groups. 81h:22007
Roosmann, Wulf Kirillov's character formula for reductive Lie groups. 81g:22012
Rouvière, F. Invariant differential equations on certain semisimple Lie groups. 81g:22013
Shelstad, Diana Orbital integrals for $\text{GL}_2(\mathbb{R})$. 81f:22017
Vági, S. See Ogden, R. D., 81f:22016
Wallach, Nolan R. See DeGeorge, David L., 81g:22010
Warner, Garth See Osborne, M. Scott, 81g:22011

secondary classifications:

- Bagchi, Somesh Chandra (with Sitaram, Alladi) Spherical mean periodic functions on semisimple Lie groups. (81j:43021)
Brüning, Jochen (with Heintze, Ernst) Representations of compact Lie groups and

- elliptic operators. (81b:58039)
- Corwin, L. (with Greenleaf, F. P.) Fourier transforms of smooth functions on certain nilpotent Lie groups. (81f:22012)
- Dieseler, Bernd Lebesgue constants for spherical partial sums of Fourier series on compact Lie groups. (81f:43012)
- Eguchi, Masaki An application of topological Paley-Wiener theorems to invariant differential equations on symmetric spaces. (81e:43021)
- Elie, Laure Fonctions harmoniques positives sur le groupe affine. (81a:60083)
- El Kohen, A. Maximal operators on hyperboloids. (81f:43020)
- Flensted-Jensen, Mogens (with Koornwinder, Tom H.) Positive definite spherical functions on a noncompact, rank one symmetric space. (81j:43015)
- Geller, Daryl Necessary and sufficient conditions for local solvability on the Heisenberg group. (81e:58057)
- Gér, V. M. Invariant algebras of functions on Lie groups. (Russian) (81a:43005a)
- Giulini, Saverio (with Soardi, Paolo M.; Travaglini, Giancarlo) A Cohen type inequality for compact Lie groups. (81f:43009)
- Greenleaf, F. P. See Corwin, L. (81f:22012)
- Heintze, Ernst See Brüning, Jochen. (81f:58039)
- Heifler, B. (with Nourrigat, Jean François) Hypoellipticité pour des groupes nilpotents de rang de nilpotence 3. (81d:35016)
- (with Nourrigat, Jean François) Opérateurs différentiels hypoelliptiques et groupes nilpotents. (81e:58058)
- Kaplan, Arnold Fundamental solutions for a class of hypoelliptic PDE generated by composition of quadratic forms. (81e:58059)
- Kashiwara, Masaki (with Kowata, Atsutaka; Minemura, K.; Okamoto, Kiyosato; Ōshima, Toshio; Tanaka, Makoto) Eigenfunctions of invariant differential operators on a symmetric space. (81f:43013)
- Koornwinder, Tom H. See Flensted-Jensen, Mogens. (81j:43015)
- Kowata, Atsutaka See Kashiwara, Masaki; et al. (81f:43013)
- Lax, Peter D. (with Phillips, Ralph S.) Translation representations for the solution of the non-Euclidean wave equation. (81a:43013)
- Lichtenstein, Woody Qualitative behavior of special functions on compact symmetric spaces. (81g:58041)
- Marinov, M. S. Invariant volumes of compact groups. (81m:53053)
- Médviev, Guy Hypoellipticité analytique sur des groupes nilpotents de rang 2. (81i:35037)
- Milne, Stephen C. Hypergeometric series well-poised in $SU(n)$ and a generalization of Biedenharn's G -functions. (81i:33010)
- Minemura, K. See Kashiwara, Masaki; et al. (81f:43013)
- Molčanov, V. F. Plancherel's formula for hyperboloids. (Russian) (81j:43023)
- Nourrigat, Jean François See Heifler, B. (81e:58058) and Heifler, B. (81d:35016)
- Okamoto, Kiyosato See Kashiwara, Masaki; et al. (81f:43013)
- Ōshima, Toshio Poisson transformations on affine symmetric spaces. (81k:43013)
- (with Sekiguchi, Jirō) Eigenspaces of invariant differential operators on an affine symmetric space. (81k:43014)
- See also Kashiwara, Masaki; et al. (81f:43013)
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22E35 Analysis on p -adic Lie groups [See also 12A85.]

22E40 Discrete subgroups of Lie groups [See also 20Hxx and 32Nxx.]

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22E70 Applications of Lie groups to physics; explicit representations [See also 81C40, 81Gxx.]

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- Sudarshan, E. C. G. See Mukunda, N.; et al., (81k:81033)
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- Truax, D. R. Dynamical symmetries of rotationally invariant, three-dimensional, Schrödinger equations. (81c:81154)
- Truskova, N. F. Level intersecting in the quantum-mechanical two-center problem and representations of the $O(2,2) \times O(2,2)$ and $O(3,1) \times O(3,1)$ groups. (81h:81039)
- Vanden Bergh, G. (with De Meyer, H. E.) Shift-operator techniques for the classification of multipole-phonon states. I. Properties of shift operators in the $R(5)$ group. (81k:81036a)
- (with De Meyer, H. E.) Shift-operator techniques for the classification of multipole-phonon states. II. Eigenvalues of the quadrupole shift operator O_1^0 . (81k:81036b)
- (with De Meyer, H. E.) Shift operator techniques for the classification of multipole-phonon states. III. The quadrupole-phonon eigenstates of O_1^0 . (81k:81036c)
- Verdaguer, Enric Approximate Poincaré invariance of the post-Newtonian metric tensor and gauge conditions. (81m:83019)
- Volkov, Anatole B. See Gubshani, P., (81h:81036)
- Volkov, D. V. See Akulov, V. P., (81c:83026)
- Vujčić, M. See Herbut, F.; et al., (81h:81038)
- Winternitz, P. See Moshinsky, M., (81f:81014)
- Wulffman, Carl E. Dynamical groups in atomic and molecular physics. (81c:81051)
- Zhou, Guang Zhao (with Gao, Chong Shou) Electro-weak theory in $SU(3)$. (81m:81069)
- Amsterdam ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Colloquium:
Representations of Locally Compact Groups with Applications ★Representations of

- locally compact groups with applications. Part I, II. (81k:22001)
Compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
Groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
Locally compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
Representations of locally compact groups with applications ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

22E99 None of the above, but in this section

- Falkowski, B.-J. A note on the first order cohomology for $SL(n; \mathbb{C})$. (81f:22042)
 Guichardet, Alain Sur la 1-cohomologie des représentations unitaires de certains groupes de Lie. (81f:22043)
 Macdonald, I. G. The volume of a compact Lie group. (81h:22018)
 Šapukov, B. N. Structure of a tensor space. (Russian) (81k:22016)

secondary classifications:

- Bertine, Nicole (with Vergne, Michèle) Équations de Hua et intégrales de Poisson. (English summary) (81c:32059)
 Franksen, Ole Immanuel On measurements and their group-theoretical foundation. (See 80k:00004)
 Pressley, Andrew Decompositions of the space of loops on a Lie group. (81b:57037)
 Schempp, Walter G -stable spaces of solutions of linear partial differential equations. (81c:58066)
 van Strien, Sebastian J. Unicity of the Lie product. (81a:53061)
 Vergne, Michèle See Bertine, Nicole, (81c:32059)

26-XX REAL FUNCTIONS [See also 54C30.]

26-01 Elementary exposition, textbooks

- Amazigo, John C. (with Rubinfeld, Lester A.) ★Advanced calculus and its applications to the engineering and physical sciences. (81k:26001)
 (Armanović, I. G.) See Berman, G. N., 81j:26001
 Berman, G. N. ★A problem book in mathematical analysis. (81j:26001)
 Cigler, Johann ★Einführung in die Differential- und Integralrechnung. Teil 1. (German) [Introduction to differential and integral calculus. Part 1] (81k:26001a)
 ★Einführung in die Differential- und Integralrechnung. Teil 2. (German) [Introduction to differential and integral calculus. Part 2] (81k:26001b)
 Clark, Colin W. ★The theoretical side of calculus. (81j:26002)
 Conti, Roberto ★Lezioni di analisi matematica. Vol. primo. (Italian) [Lectures in mathematical analysis. Vol. I] (81m:26001)
 Dinculeanu, Nicolae See Nicolescu, M.; et al., 81k:26002a and Nicolescu, M.; et al., 81k:26002b
 (Kordemski, B. A.) See Berman, G. N., 81j:26001
 (Levant, Leonid) See Berman, G. N., 81j:26001
 Marcus, Solomon See Nicolescu, M.; et al., 81k:26002a and Nicolescu, M.; et al., 81k:26002b
 Nicolescu, M. (with Dinculeanu, Nicolae; Marcus, Solomon) ★Analiză matematică. Vol. I. (Romanian) [Mathematical analysis. Vol. I] (81k:26002a)
 (with Dinculeanu, Nicolae; Marcus, Solomon) ★Analiză matematică. Vol. II. (Romanian) [Mathematical analysis. Vol. II] (81k:26002b)
 (Pozolsky, R. I.) See Berman, G. N., 81j:26001
 Ross, Kenneth A. ★Elementary analysis: the theory of calculus. (81a:26001)
 Rubinfeld, Lester A. See Amazigo, John C., 81j:26001
 (Šestopal, M. G.) See Berman, G. N., 81j:26001
 Šilov, G. E. ★Дифференцирование функций в линейных пространствах. (Russian) [Differentiation of functions in linear spaces] (81c:26001)
 (Zabrejko, P. P.) See Šilov, G. E., 81c:26001

secondary classifications:

- Bühl, Edmund (with Rütting, Dieter) Die Funktionalgleichung der Exponentialfunktion. (81a:39003)
 Klambauer, Gabriel ★Problems and propositions in analysis. (81b:00003)
 Męczyński, M. J. (with Muszyński, J.; Traczyk, Tadeusz; Żakowski, Wojciech) ★Matematyka: podręcznik podstawowy dla WST. Tom I. (Polish) [Mathematics: textbook for students in polytechnics. Vol. I] (81g:00003)
 Muszyński, J. See Męczyński, M. J.; et al., (81g:00003)
 Rütting, Dieter See Bühl, Edmund, (81a:39003)
 Teljakovskij, S. A. ★Сборник задач по теории функций действительного переменного. (Russian) [A collection of problems in the theory of functions of a real variable] (81j:28002)
 Traczyk, Tadeusz See Męczyński, M. J.; et al., (81g:00003)
 Żakowski, Wojciech See Męczyński, M. J.; et al., (81g:00003)

26-02 Advanced exposition (research surveys, monographs, etc.)

secondary classifications:

- Čelidze, V. G. (with Džvariešvili, A. G.) ★Теория интеграла Давидова и некоторые ее приложения. (Russian) [Theory of the Denjoy integral and some of its applications] (81e:26002)
 Džvariešvili, A. G. See Čelidze, V. G., (81e:26002)

26-03 Historical (must also be assigned at least one classification number from Section 01)

- Dolženko, E. P. (with Ul'janov, P. L.) Some questions of the theory of functions. (Russian) (81k:26002)
 Kuratowski, Kazimierz Some remarks on the origins of the theory of functions of a real variable and of the descriptive set theory. (81j:26003)
 Ul'janov, P. L. See Dolženko, E. P., 81k:26002

secondary classifications:

- Bochner, Salomon The emergence of analysis in the Renaissance and after. (81d:01012)
 Constantinescu, Corneliu Die Definition des Integrals für stetige Funktionen bei Cauchy und Dirichlet. (81m:01029)
 Edwards, C. H., Jr. ★The historical development of the calculus. (81c:01003)
 (Luzin, N. N.) See Phillips, Esther R., (81c:01027)
 Mejibo, Lars C. Some fundamental theorems about real numbers and their history. (Danish. English summary) (81j:01026a)
 Addendum to: "Some fundamental theorems about real numbers and their history". (Danish. English summary) (81j:01026b)
 Monna, A. F. ★Évolution de problèmes d'existence en analyse. (French) [Evolution of existence problems in analysis] (81f:01022)
 Phillips, Esther R. Nicolai Nicolaevich Luzin and the Moscow school of the theory of functions. (Russian and French summaries) (81c:01027)

26-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

- Oliver, J. An algorithm for numerical differentiation of a function of one real variable. (81c:65009)

26-06 Proceedings, conferences, etc.

26AXX Functions of one variable

26A03 Foundations: limits and generalizations, elementary topology of the line

26A06 One-variable calculus

- Adikesavan, A. S. A note on Taylor's theorem. (81c:26002)
 Bagby, Richard J. Taylor polynomials and difference quotients. (81b:26001)
 Faris, William G. Invariance in calculus. (81d:26001)
 Grossman, Jane (with Grossman, Michael; Katz, Robert) ★The first systems of weighted differential and integral calculus. (81k:26003)
 Grossman, Michael See Grossman, Jane; et al., 81k:26003
 Katz, Robert See Grossman, Jane; et al., 81k:26003
 Pavelle, Richard Erratum: "The Planck integral cannot be evaluated in terms of a finite series of elementary functions" [J. Math. Phys. 21 (1980), no. 1, 14; MR 80k:26001]. (81k:26004)

26A09 Elementary functions

26A12 Rate of growth of functions, orders of infinity, slowly increasing functions [See also 26A48.]

- Zimring, Shimshon A new representation theorem for regularly varying functions. (81a:26002)

secondary classifications:

- Jech, Thomas J. On a problem of L. Nachbin. (81d:04003)
 Pak, I. N. Weakly oscillating functions. (Russian) (81j:40011)
 Roe, J. A characterization of the sine function. (81a:33001)

26A15 Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.) (For properties determined by Fourier coefficients, see 42A16; for those determined by approximation properties, see 41A25.)

- Buzetaam, Şerban On a problem by H. W. Pu, H. H. Pu and T. H. Teng concerning uniform continuity. (81h:26001)
 Ceder, J. (with Laczovich, M.; Petruska, Gy.) On a problem about Darboux points. (81j:26004)
 On Darboux points of real functions. (81c:26003)
 Hasumi, Morisuke (with Yabuta, Kōzō) Monotonicity and continuity. (81k:26003)
 Laczovich, M. See Ceder, J.; et al., 81j:26004
 O'Malley, Richard J. Insertion of Baire *1 , Darboux functions. (81c:26004)
 Oskolkov, K. I. Quantitative estimates of N. N. Luzin's C-property for classes of integrable functions. (81a:26003)
 Petruska, Gy. See Ceder, J.; et al., 81j:26004
 Popovićová, Marta Local characterizations of Darboux Baire 1 functions. (Russian summary) (81k:26005)
 Pu, Huan Wén (with Pu, Huo Hui Min; Teng, T. H.) Conditions for the uniform continuity of a real function. (81e:26001)
 Pu, Huo Hui Min See Pu, Huan Wén; et al., 81e:26001
 Radoslavova, T. V. Decrease orders of the L^p -moduli of continuity ($0 < p < \infty$). (Russian summary) (81g:26001)

- Srinivasan, V. K. An equivalent condition for the continuity of a function. **81f:26001**
 Teng, T. H. See Pu, Huan Wén; et al., **81e:26001**
 Wang, Zu Yue Darboux function oscillating everywhere. (Chinese. English summary) **81k:26006**
 Yabuta, Kōzō See Hasumi, Morisuke, **81i:26003**

secondary classifications:

- (Debreve, Paul) See Hengartner, Walter; et al., **(81b:60014)**
 Hengartner, Walter (with Theodorescu, Radu) A characterization of strictly unimodal distribution functions by their concentration functions. Unimodal distribution functions. **(81b:60014)**
 Kato, Norio Real variable lemmas and their applications to sample properties of stochastic processes. **(81c:60052)**
 Kato, Norio Segmental coverings and uniform continuity of constructive functions. (Russian) **(81g:03071)**
 Pavlov, E. I. Sufficient conditions for univalence of certain integral representations. (Russian) **(81h:30016)**
 Schroth, Peter On $(1, \delta)$ -replicative functions with isolated discontinuities. **(81k:39006)**
 Steele, J. Michael A counterexample related to a criterion for a function to be continuous. **(81j:60050)**
 Theodorescu, Radu See Hengartner, Walter, **(81b:60014)**
 Wilmes, Gerhard On Riesz-type inequalities and K -functionals related to Riesz potentials in \mathbb{R}^n . **(81i:42001)**
 Bibliography:
 Unimodality See Hengartner, Walter; et al., **(81b:60014)**

26A16 Lipschitz (Hölder) classes

secondary classifications:

- Di Bari, Cristina Maria (with Vetro, Pasquale) An observation concerning differentiability. (Italian. French summary) **(81b:26002)**
 Krantz, Steven G. Correction to: "Intrinsic Lipschitz classes on manifolds with applications to complex function theory and estimates for the $\bar{\partial}$ and $\bar{\partial}_b$ equations" [Manuscripta Math. 24 (1978), no. 4, 351-378; MR 80b:26020]. **(81j:32005)**
 Vetro, Pasquale See Di Bari, Cristina Maria, **(81b:26002)**

26A18 Iteration [See also 39B10, 47H10, 54H25.]

- Zhu, Marek Cezary On differentiable iteration groups. **81a:26004**

secondary classifications:

- Gumowski, Igor (with Mira, Christian) ★ Recurrence and discrete dynamic systems. **(81m:58052)**
 Mira, Christian See Gumowski, Igor, **(81m:58052)**
 Stolarczyk, Maria La convergence de suites d'itération et l'existence de la dérivée de la fonction itérée dans un point stationnaire. (Polish summary) **(81m:26003)**
 Subrahmanyam, P. V. On the convergence of iterates. **(81k:40003)**
 Zhu, Marek Cezary ★ Continuous and differentiable iteration semigroups. **(81e:39006)**

26A21 Classification of real functions; Baire classification of sets and functions [See also 04A15, 28A05, 54C50.]

secondary classifications:

- Császár, Ákos (with Laczkovich, M.) Discrete and equal convergence. **(81e:54013)**
 Farkov, Jana On generalized Darboux and connectivity functions. (Russian summary) **(81a:54014)**
 Laczkovich, M. See Császár, Ákos, **(81e:54013)**
 Louveau, Alain A separation theorem for Σ_1^1 sets. **(81j:04001)**

26A24 Differentiation (functions of one variable): general theory, generalized derivatives, mean-value theorems [See also 28A15.]

- Boss, R. P., Jr. (with Cargo, G. T.) Level sets of derivatives. **81d:26002**
 Bruckner, Andrew Current trends in differentiation theory. **81a:26005**
 Cargo, G. T. See Boss, R. P., Jr., **81d:26002**
 Di Bari, Cristina Maria (with Vetro, Pasquale) An observation concerning differentiability. (Italian. French summary) **81b:26002**
 Evans, M. J. (with Humke, P. D.) The equality of unilateral derivatives. **81h:26002**
 Fleissner, R. (with O'Malley, Richard J.) Conditions implying the summability of approximate derivatives. **81m:26002**
 Humke, P. D. See Evans, M. J., **81h:26002**
 Kato, N. K. A note on symmetric derivative. **81g:26002**
 Mikš, Ladislav Extreme essential derivatives of Borel and Lebesgue measurable functions. **81c:26005**
 O'Malley, Richard J. (with Weil, C. E.) Iterated L_p derivatives. **81h:26003**
 See also Fleissner, R., **81m:26002**
 Pu, Huan Wén See Pu, Huan Hui Min, **81g:26003** and Pu, Huan Hui Min; et al., **81h:26004**
 Pu, Huan Hui Min (with Pu, Huan Wén; Têng, Ching Hua) Symmetric and approximate symmetric derivatives for symmetric functions. **81h:26004**
 (with Pu, Huan Wén) On approximate Schwarz derivatives. **81g:26003**
 Reichard, Klaus Roots of differentiable functions of one real variable. **81j:26005**
 Stolarczyk, Maria La convergence de suites d'itération et l'existence de la dérivée de la fonction itérée dans un point stationnaire. (Polish summary) **81m:26003**
 Têng, Ching Hua See Pu, Huan Hui Min; et al., **81h:26004**
 Testa, A. M. Analogues of some theorems from mathematical analysis of discontinuous functions. (Russian) **81i:26004**

- Thomson, B. S. On the derived numbers of VBG₂ functions. **81m:26004**
 Vetro, Pasquale See Di Bari, Cristina Maria, **81b:26002**
 Weil, C. E. See O'Malley, Richard J., **81h:26003**

secondary classifications:

- Bagby, Richard J. Taylor polynomials and difference quotients. **(81b:26001)**
 Bruneau, Michel Sur la dérivation approximative. **(81d:28004)**
 Dérivation et intégration. **(81m:28002)**
 Duff, G. F. D. The variation of a maximal function. **(81i:42018)**
 Kato, Hachiro On p -adic differentiability. **(81h:12020)**
 Krotov, V. G. Strong approximation by Fourier series and differentiability properties of functions. (Russian summary) **(81c:42009)**
 Neuhöffer, Helmut Mittelwertsatz der Differentialrechnung und harmonisches Mittel. **(81c:39003)**
 Pál, János On almost everywhere differentiability of dyadic integral functions on \mathbb{R}_+ . **(81k:42023)**
 Pu, Huan Wén (with Pu, Huan Hui Min) Measurability of approximate derivatives. **(81i:28008)**
 Pu, Huan Hui Min See Pu, Huan Wén, **(81i:28008)**

26A27 Nondifferentiability (nondifferentiable functions, points of nondifferentiability), discontinuous derivatives

- Mohr, Ernst Wo ist die Riemannsche Funktion $\sum_{n=1}^{\infty} \sin n^2 x / n^2$ nichtdifferenzierbar? (English summary) **81h:26005**

secondary classifications:

- Berry, M. V. (with Lewis, Z. V.) On the Weierstrass-Mandelbrot fractal function. **(81d:00005)**
 Geman, Donald (with Horowitz, Joseph) Occupation densities. **(81h:60076)**
 Horowitz, Joseph See Geman, Donald, **(81h:60076)**
 Lewis, Z. V. See Berry, M. V., **(81d:00005)**
 Mauldin, R. Daniel The set of continuous nowhere differentiable functions. **(81g:46033)**

26A30 Singular functions, Cantor functions, functions with other special properties

- Jaraboe, Ole Groth On Cantor sets and some of their strange properties. (Danish. English summary) **81k:26007**

secondary classifications:

- Maus, Jacques On matching principles. **(81g:41038)**
 Świątkowski, T. Properties of a function of E. Marczewski. **(81h:28002)**

26A33 Fractional derivatives and integrals

- Duggal, B. P. (with Kapur, M. L.) On weighted fractional integrals. **81h:26006**
 Kalla, Shyam Lal Operators of fractional integration. **81j:26006**
 Kapur, M. L. See Duggal, B. P., **81h:26006**
 Koul, C. L. See Raina, R. K., **81h:26003**
 Raina, R. K. (with Koul, C. L.) On Weyl fractional calculus. **81h:26003**
 On the Weyl fractional differentiation. **81h:26007**
 Ross, Bertram The evaluation of a limit of an indeterminate form. **81h:26005**
 Savčenko, T. I. On stable differentiation of functions. (Russian) **81k:26008**

secondary classifications:

- Komatu, Yōsaku A one-parameter family of operators defined on analytic functions in a circle. **(81f:47034)**
 Koul, C. L. See Raina, R. K., **(81h:33010)**
 Králík, Dezső Elementary methods of the theory of series in approximation theory. (Hungarian) **(81m:40007)**
 Lase, G. Remarks on the relation between fractional moments and fractional derivatives of characteristic functions. **(81c:60012)**
 McBride, Adam C. ★ Fractional calculus and integral transforms of generalized functions. **(81d:46045)**
 Northover, Francis H. See Ross, Bertram, **(81d:44008)** and Ross, Bertram, **(81g:34013)**
 Owa, Shigeo On applications of the fractional calculus. **(81h:30004)**
 Raina, R. K. (with Koul, C. L.) Fractional derivatives of the H -functions. **(81h:33010)**
 Ross, Bertram (with Northover, Francis H.) Fractional calculus and derivatives of complex order. **(81d:44008)**
 (with Northover, Francis H.) Application of derivatives of complex order in the theory of operators of fractional order $d^{3-1/2}/dx^{3-1/2}$. (Russian) **(81g:34013)**
 The use of fractional calculus in obtaining Legendre functions of arbitrary index. **(81h:33013)**
 Sprinkhuizen-Kuyper, Ida G. A fractional integral operator corresponding to negative powers of a certain second-order differential operator. **(81h:47044)**

26A36 Antidifferentiation

26A39 Denjoy and Perron integrals, other special integrals

- Bhattacharyya, P. (with Lahiri, B. K.) On upper and lower integral functions. **81i:26008**
 Bullen, P. S. Axiomatisations of various nonabsolute integrals. **81i:26009**
 Čelidze, V. G. (with Džvaršvilis, A. G.) ★ Теория интеграла Денжу и некоторые ее приложения. (Russian) [Theory of the Denjoy integral and some of its applications] **81i:26002**
 Džvaršvilis, A. G. See Čelidze, V. G., **81i:26002**

- Kubota, Yôto An elementary theory of the special Denjoy integral. **81c:26006**
 A direct proof that the RC-integral is equivalent to the D^* -integral. **81b:26006**
 Lahiri, B. K. See Bhattacharyya, P., **81b:26008**
 Skljarenko, V. A. Integration by parts in the SCP Burkil integral. (Russian) **81k:26009**
 Volčič, Alessio The differentiation of Daniell-Stone integrals. (Italian. English summary) **81d:26003**

secondary classifications:

- Bondi, A. (with Bongiorno, Benedetto; Rao, Giuseppe) On some classes of functions. (Italian. English summary) **(81b:26004)**
 Bongiorno, Benedetto See Bondi, A.; et al., **(81b:26004)**
 Demuth, Oswald The use of the Riemann-Stieltjes integral in the theory of the constructive Lebesgue integral, and its generalizations. (Russian) **(81k:03114)**
 Foran, James On extending the Lebesgue integral. **(81j:26007)**
 Hamlica, Jiří Der verallgemeinerte Ljapunovsche Oszillationssatz. (Czech summary) **(81i:34028)**
 Laskasenko, T. P. Majorants of D -integrable functions. (Russian) **(81b:42069)**
 Rao, Giuseppe See Bondi, A.; et al., **(81b:26004)**

26A42 Integrals of Riemann, Stieltjes and Lebesgue type [See also 28--XX.]

- Das, A. G. (with Lahiri, B. K.) On RS_∞ -integral. **81d:26004**
 Foran, James On extending the Lebesgue integral. **81j:26007**
 Lahiri, B. K. See Das, A. G., **81d:26004**
 Volčič, Alessio A comparison of the Daniell-Stone integral and the Lebesgue integral. (Italian. English summary) **81c:26007**
 Zamegg, Alfred Entwicklung des additiven Riemann'schen Integrals bzw. dessen Inversen nach iterierten Produktintegralen. **81c:26003**

secondary classifications:

- Demuth, Oswald (with Polivka, J.) The representation of linear functionals in the space of codes of constructive functions that are uniformly continuous on the segment $0 \triangle 1$. (Russian) **(81h:03113)**
 The use of the Riemann-Stieltjes integral in the theory of the constructive Lebesgue integral, and its generalizations. (Russian) **(81k:03114)**
 Henstock, R. The variation on the real line. **(81d:26005)**
 Orudiev, G. A. Determination of a convergence domain for some improper integrals. (Russian. Azerbaijani and English summaries) **(81k:40004)**
 Polivka, J. See Demuth, Oswald, **(81h:03113)**

26A45 Functions of bounded variation, generalizations

- Balada, Emilio (with Flocchi, Cristina) Classification of functions. (Italian) **81g:26004**
 Balada, C. L. On ordered harmonic bounded variation. **81j:26008**
 Bondi, A. (with Bongiorno, Benedetto; Rao, Giuseppe) On some classes of functions. (Italian. English summary) **81b:26004**
 Bongiorno, Benedetto See Bondi, A.; et al., **81b:26004**
 Flocchi, Cristina See Balada, Emilio, **81g:26004**
 Goffman, Casper (with Liu, Fon Che) Lusin type theorems for functions of bounded variation. **81f:26002**
 Henstock, R. The variation on the real line. **81d:26005**
 Leonov, A. S. Functions of bounded generalized variation. (Russian) **81a:26006**
 Liu, Fon Che See Goffman, Casper, **81f:26002**
 Perlman, S. Functions of generalized variation. **81b:26007**
 Rao, Giuseppe See Bondi, A.; et al., **81b:26004**
 Waterman, Daniel On the note of C. L. Balada. **81j:26009**

secondary classifications:

- Bongiorno, Benedetto Differentiation of set functions. (Italian summary) **(81c:28003)**
 Bruneau, Michel Sur la dérivation approximative. **(81d:28004)**
 Di Bari, Cristina Maria (with Vetro, Pasquale) An observation concerning differentiability. (Italian. French summary) **(81b:26002)**
 Evans, M. J. (with Humke, P. D.) The equality of unilateral derivatives. **(81b:26002)**
 Humke, P. D. See Evans, M. J., **(81b:26002)**
 Kandil, M. A. Vector-valued functions of strong bounded variation. (Arabic summary) **(81d:26010)**
 Lau, Ka Sing (with Lee, Jonathan K.) On generalized harmonic analysis. **(81d:42035)**
 Lee, Jonathan K. See Lau, Ka Sing, **(81d:42035)**
 Leonov, A. F. Solution of a generalized convolution equation. (Russian) **(81b:45006)**
 Tereshin, A. P. A mixed q -integral p -variation, and theorems of equivalence and imbedding of classes of functions with a mixed modulus of smoothness. (Russian) **(81f:46050)**
 Thomson, B. S. On the derived numbers of VBG_* functions. **(81m:26004)**
 Vetro, Pasquale See Di Bari, Cristina Maria, **(81b:26002)**

26A46 Absolutely continuous functions

- Das, A. G. (with Lahiri, B. K.) On absolutely k th continuous functions. **81b:26008**
 Lahiri, B. K. See Das, A. G., **81b:26008**

secondary classifications:

- Di Bari, Cristina Maria (with Vetro, Pasquale) An observation concerning differentiability. (Italian. French summary) **(81b:26002)**
 Vetro, Pasquale See Di Bari, Cristina Maria, **(81b:26002)**

26A48 Monotonic functions, generalizations

- Belna, C. L. (with Evans, M. J.; Humke, P. D.) Symmetric monotonicity. **81b:26005**
 Evans, M. J. See Belna, C. L.; et al., **81b:26005**
 Humke, P. D. See Belna, C. L.; et al., **81b:26005**
 Vasudeva, Harkrishan Positive definite matrices and absolutely monotone functions. **81a:26007**

secondary classifications:

- Pečarić, Josip E. See Vasić, Petar M., **(81g:26014)**
 Simić, Slavko Proof of a hypothesis on some segments of harmonic series and a new hypothesis. **(81m:10017)**
 Vasić, Petar M. (with Pečarić, Josip E.) On the Jensen inequality for monotone functions. **(81g:26014)**

26A51 Convexity, generalizations

- Chi, Zong Tao (with Qi, Li Qun) Convex functionals of λ -order. (Chinese. English summary) **81f:26003**
 Cross, G. E. Splicing n -convex functions using splines. **81k:26010**
 Gabler, Siegfried Folgenkonvexe Funktionen. (English summary) **81c:26004**
 Lacković, Ivan B. On the epigraph of g -convex functions. **81f:26004**
 On some properties of g -convex functions. **81f:26005**
 Longinetti, Marco Compactness of sequences of uniformly bounded quasiconvex functions. (Italian. English summary) **81j:26010**
 Mathsen, R. M. Coincidence of nodes for generalized convex functions. **81m:26005**
 Nahmias, Steven Sign changes in linear combinations of derivatives and convolutions of Pólya frequency functions. **81b:26009**
 Nedoma, Josef Complete extension of a convex function. **81c:26008**
 Olteanu, Octav Sur les fonctions convexes définies sur des ensembles convexes bornés de \mathbb{R}^n . (English summary) **81f:26006**
 Qi, Li Qun See Chi, Zong Tao, **81f:26003**
 Schulz, Karl-Dieter Die Monotonie von Differenzenquotienten als Verallgemeinerung der Konvexität von Funktionen. (German) [Monotonicity of difference quotients as a generalization of the convexity of functions] **81b:26010**
 Stoilinski, Stanislav (φ, ψ) -convex functions. **81m:26006**
 Umamaheswaram, S. $\lambda(n, k)$ -convex functions. **81b:26006**

secondary classifications:

- Benkő, Ioan Dual optimality criteria in absence of topology. **(81f:50079)**
 Bronstein, E. M. Extremal convex functions and sets. (Russian) **(81c:52003)**
 Bulavskii, V. A. Relaxation in problems with inequalities. (Russian) **(81h:90122)**
 Crouzeix, Jean-Pierre Conditions for convexity of quasiconvex functions. **(81c:50073)**
 Kimchi, E. Characterization of generalized convex functions by their best approximation in sign-monotone norms. **(81d:41033)**
 Kuczma, Marek Regular fractional iteration of convex functions. **(81m:39006)**
 Landsberg, Peter T. (with Tranah, D.) Entropies need not be concave. **(81m:82006)**
 Maksimović, Dragoslav M. A short proof of generalized Hadamard's inequalities. **(81g:26010)**
 Nefedov, V. N. Regularization methods for convex three-step lexicographic problems. (Russian) **(81h:90135)**
 Pečarić, Josip E. See Vasić, Petar M., **(81g:26014)** and Vasić, Petar M., **(81b:26016)**
 Pustylnik, E. I. Some inequalities in the theory of selfadjoint operators. (Russian) **(81b:46084)**
 Stanković, Ljubomir R. See Vasić, Petar M., **(81a:26015)**
 Tranah, D. See Landsberg, Peter T., **(81m:82006)**
 Udriste, Constantin Directional derivatives of convex functions on Riemannian manifolds. **(81g:53031)**
 Vasić, Petar M. (with Stanković, Ljubomir R.) Some inequalities for convex functions. **(81a:26015)**
 (with Pečarić, Josip E.) On the Jensen inequality for monotone functions. **(81g:26014)**
 (with Pečarić, Josip E.) On the Jensen inequality. **(81b:26016)**
 Wang, Chung Lie Convexity and inequalities. **(81c:26017)**
 Živaljević, Rade Note on H -convex functions. **(81g:52013)**

26A99 None of the above, but in this section

- Garsia, Adriano M. Some combinatorial methods in real analysis. **81f:26007**
 Miller, John D. Maxima of functions. **81f:26008**

secondary classifications:

- Darst, Richard B. The connection between lim sup and uniform integrability. **(81f:28004)**
 Frasca, Michele (with Quattrocchi, Gaetano) Some properties of the ordinary integral of the calculus of variations taken in the sense of Weierstrass. (Italian) **(81f:49041)**
 Gaffney, P. W. The range of possible values of $f(x)$. **(81g:65042)**
 Kruglikov, V. I. (with Luferenko, V. P.) Geometric characterization of quasisymmetric functions. (Russian. English summary) **(81b:30024)**
 Luferenko, V. P. See Kruglikov, V. I., **(81b:30024)**
 Quattrocchi, Gaetano See Frasca, Michele, **(81f:49041)**
 Sanderson, Donald E. Criteria for constancy of functions with almost totally disconnected range or domain. **(81j:54026)**

26Bxx Functions of several variables

26B05 Continuity and differentiation questions

- Bruneau, Michel Densité d'une fonction. **81d:26006**

Cattaneo, Carlo Functions that are regularly discontinuous across a hypersurface: a general formula for geometric compatibility. (Italian) 81c:26009

Gopengauz, I. E. Conditions for differentiability of functions of several variables. (Russian) 81b:26007

(Laczkovich, M.) See Petruska, Gy. 81c:26006

de Lucia, Paolo On the differentiability of functions. 81b:26008

Milic, Ladislav Maximal additive and maximal multiplicative families for the family of all interval-Darboux Baire one functions. 81c:26005

Petruska, Gy. On a problem of M. Laczkovich. 81c:26006

Vinogradova, I. A. A condition for a total differential. (Russian. English summary) 81j:26011

secondary classifications:

Ben-Tal, Aharon (with Teboulle, Marc; Zowe, Jochem) Second order necessary optimality conditions for semi-infinite programming problems. (81c:90072)

Dem'janov, V. F. (with Poljakova, L. N.) Conditions for a minimum of a quasidifferentiable function on a quasidifferentiable set. (Russian) (81j:90102)

Miric, Stefan A note on the generalized differentiability of mappings. (81k:58009)

Poljakova, L. N. See Dem'janov, V. F., (81j:90102)

Rader, Trout Nice demand functions. II. (81i:90024)

Teboulle, Marc See Ben-Tal, Aharon; et al., (81c:90072)

Zowe, Jochem See Ben-Tal, Aharon; et al., (81c:90072)

26B10 Implicit function theorems, Jacobians, transformations with several variables

Newiszewski, Jerzy Density-preserving homeomorphisms. 81j:26012

secondary classifications:

Fabian, Marian On relations between local surjection and implicit function theorems. (Czech and Russian summaries) (81k:58004)

Ramankutty, P. Functional dependence and analytic functions. (81k:32004)

26B12 Calculus of vector functions

Davis, Harry F. (with Snider, Arthur David) ★Introduction to vector analysis. 81c:26007

Snider, Arthur David See Davis, Harry F., 81c:26007

secondary classifications:

Adikesavan, A. S. A note on Taylor's theorem. (81c:26002)

Sard, Arthur Integrating terms for inexact differentials. (German summary) (81g:41045)

26B15 Integration: length, area, volume [See also 28A75, 51M25.]

Aversa, Alfonso Representation theorem for the integral $\mathcal{G}(f, T, \varphi)$. (Italian. English summary) 81k:26011

Goffman, Casper (with Liu, Fon Che) Derivative measures. 81c:26010

Liu, Fon Che See Goffman, Casper, 81c:26010

Raguel, Marcello On the Fubini-Tonelli integral of Weierstrass type. (Italian. English summary) 81k:26012

Zakhar, A. M. A probabilistic proof of a geometric theorem. (Russian) 81m:26007

secondary classifications:

Kratz, Lawrence J. Replacing a double integral with a single integral. (81a:65034)

Onsman, Robert Isoperimetric inequalities and eigenvalues of the Laplacian. (81g:52012)

Raguel, Marcello Interval functions and a generalized variation. (Italian) (81d:26007)

On the approximation and representation of the classical and generalized Burkil integral. (Italian) (81m:49046)

Sukhtenko, A. V. Mappings that preserve volume. (Russian) (81g:52005)

Terehla, A. P. Estimation of a multiple integral by integrals of lower multiplicity. (Russian) (81h:41035)

Toupe, Flemming Thin trees and geometrical criteria for Lebesgue nullsets. (81g:28004)

26B20 Integral formulas (Stokes, Gauss, Green, etc.)

secondary classifications:

Tetis, A. M. Analogues of some theorems from mathematical analysis of discontinuous functions. (Russian) (81b:26004)

26B25 Convexity, generalizations

Benko, Josef Concave functions as orientation morphisms. (Romanian. English summary) 81b:26009

Crouzet, Jean-Pierre On second-order conditions for quasiconvexity. 81b:26011

Ferland, Jacques A. Necessary and sufficient conditions for quasiconvexity and pseudoconvexity. 81b:26012

Kolbreth, D. K. k -convexity. 81f:26009

Lowen, Robert Convex fuzzy sets. 81b:26010

Schulz, Konrad (with Schwartz, Bernd) Finite extensions of convex functions. (Russian and German summaries) 81c:26011

Schwartz, Bernd See Schulz, Konrad, 81c:26011

secondary classifications:

Fischer, Pal (with Holbrook, J. A. R.) Balayage defined by the nonnegative convex functions. (81f:46012)

Holbrook, J. A. R. See Fischer, Pal, (81f:46012)

Pop, Fulga Convex functions with respect to a distribution on a Riemannian manifold. (81c:53044)

26B30 Absolutely continuous functions, functions of bounded variation

Raguel, Marcello Interval functions and a generalized variation. (Italian) 81d:26007

secondary classifications:

Brandi, Primo (with Salvadori, Anna) On generalized area. (Italian) (81m:49045)

Goffman, Casper (with Liu, Fon Che) Derivative measures. (81c:26010)

Liu, Fon Che See Goffman, Casper, (81c:26010)

Salvadori, Anna See Brandi, Primo, (81m:49045)

26B35 Special properties of functions of several variables, Hölder conditions, etc.

Fraenkel, L. E. On regularized distance and related functions. 81a:26008

Movšič, E. E. Extension of Lipschitzian functions. (Russian) 81j:26013

secondary classifications:

Hansson, Kurt Imbedding theorems of Sobolev type in potential theory. (81j:31007)

Krantz, Steven G. Smoothness of harmonic and holomorphic functions. (81c:32020)

Musmann, Dieter (with Plachky, Detlef) Die Cantorsche Abbildung ist ein

Borel-Isomorphismus. (81h:28005)

Plachky, Detlef See Musmann, Dieter, (81h:28005)

Solomonik, V. A. Solvability of three-dimensional problems with a free boundary for a system of steady-state Navier-Stokes equations. (Russian. English summary) (81m:35117)

On the solvability of boundary and initial-boundary value problems for the Navier-Stokes equations in domains with noncompact boundaries. (Russian) (81m:35118)

26B40 Representation and superposition of functions

Golubov, B. I. Convergence of Gauss-Weierstrass type singular integrals for functions of several variables. (Russian) 81c:26008

secondary classifications:

Hariton, L. R. See Trofimov, V. M., (81c:41040)

Kahane, J.-P. Sur le treizième problème de Hilbert, le théorème de superposition de Kolmogorov et les sommes algébriques d'arcs croissants. (81i:58009)

Saakjan, A. A. Properties of Fourier coefficients of the superposition of functions. (Russian) (81h:42031)

Trofimov, V. M. (with Hariton, L. R.) On the error of uniform approximation of functions of two variables by a sum of functions of one variable. (Russian) (81c:41040)

26B99 None of the above, but in this section

Benko, Josef Optimal approximation of a sequence of k_n numbers by k multiples of another sequence of n numbers. (Romanian. English summary) 81g:26005

Calvert, Bruce (with Vamanamurthy, M. K.) Local and global extrema for functions of several variables. 81c:26012

Garrett, B. D. An erroneous argument. 81f:26010

Merkov, A. B. Some properties of smooth mappings. (Russian. English summary) 81a:26009

Schonbek, T. See Thompson, K. W., 81d:26008

Thompson, K. W. (with Schonbek, T.) A problem of the Pompeii type. 81d:26008

Vamanamurthy, M. K. See Calvert, Bruce, 81c:26012

secondary classifications:

Barugola, Alexandre Détermination de la frontière d'une "zone absorbante" relative à une récurrence du deuxième ordre, à inverse non unique. (English summary) (81f:58025)

Ladlow-Wiechers, J. Division theorem for C^k functions. (81f:58009)

26Cxx Polynomials, rational functions

26C05 Polynomials: analytic properties, inequalities, etc.

Beckus, George E. An L^2 form of Bernstein's inequality. 81a:26010

Harnos, Za. Divisors of polynomials with positive coefficients. 81j:26014

Konjagin, S. V. Estimates of derivatives of polynomials. (Russian) 81j:26015

secondary classifications:

Arestov, V. V. S. N. Bernstein inequalities for algebraic and trigonometric polynomials. (Russian) (81d:41013)

Rahman, Q. I. Inequalities of Markoff and Bernstein. (81a:41021)

26C10 Polynomials: location of zeros [See also 12D10, 30C15, 65H05.]

Anderson, Ned (with Saff, E. B.; Varga, Richard S.) On the Eneström-Kakeya theorem and its sharpness. 81b:26011

Ballman, A. I. (with Kopytko, B. I.) Conditions for the distribution of roots of a polynomial inside the unit circle. (Russian) 81j:26016

- Gevli, N. K. On a theorem of S. Bernstein. **81i:26012**
 Kopytko, B. I. See Balinskii, A. I. **81j:26016**
 Saff, E. B. See Anderson, Ned; et al. **81i:26011**
 Varga, Richard S. See Anderson, Ned; et al. **81i:26011**

secondary classifications:

- Fadeev, N. P. Properties of roots of some polynomials depending on a parameter. (Russian) **(81c:33013)**
 Grosswald, Emil Recent applications of some old work of Laguerre. **(81c:30013)**
 (Laguerre, Edmond) See Grosswald, Emil, **(81c:30013)**
 Miura, Robert M. Explicit roots of the cubic polynomial and applications. **(81f:35109)**
 Reed, Martin A series solution for the root of a polynomial. **(81g:65063)**
 Sekulski, Radolko M. The method of Prešić for factorization of polynomials. (Macedonian. French summary) **(81h:12016)**
 Sobolev, S. L. On the asymptotic behavior of Euler polynomials. (Russian) **(81a:33022)**
 Ullman, J. L. Orthogonal polynomials associated with an infinite interval. **(81j:42043)**

26C15 Rational functions [See also 14G30.]

- Donevski, B. D. On some real functions of many variables. (Bulgarian. Russian and English summaries) **81e:26009**

secondary classifications:

- Serre, Jean-Pierre Un exemple de série de Poincaré non rationnelle. **(81a:55014)**

26C99 None of the above, but in this section

- Matagne, R. À propos des pseudo-polynômes. **81j:26017**

secondary classifications:

- Calvert, Bruce (with Vamanamurthy, M. K.) Local and global extrema for functions of several variables. **(81c:26012)**
 Case, K. M. Sum rules for zeros of polynomials. I, II. **(81f:33006)**
 Schmüdgen, Konrad An example of a positive polynomial which is not a sum of squares of polynomials. A positive, but not strongly positive functional. **(81b:12024)**
 Vamanamurthy, M. K. See Calvert, Bruce, **(81c:26012)**

26Dxx Inequalities [For maximal function inequalities, see 42B25; for functional inequalities, see 39C05.]

26D05 Inequalities for trigonometric functions and polynomials

- Ahn, S. See Carroll, C. E.; et al. **81m:26008**
 Becker, Michael (with Stark, Eberhard L.) On a hierarchy of quolynomial inequalities for $\tan x$. **81j:26018**
 Carroll, C. E. (with Yang, Chung Chun; Ahn, S.) Some triangle inequalities and generalizations. **81m:26008**
 Stark, Eberhard L. See Becker, Michael, **81j:26018**
 Yang, Chung Chun See Carroll, C. E.; et al. **81m:26008**

secondary classifications:

- Goetgheluck, Pierre Polynomial inequalities and Markov's inequality in weighted L^p -spaces. **(81k:42001)**
 Kristiansen, G. K. Some inequalities for algebraic and trigonometric polynomials. **(81c:42001)**
 Rahman, Q. I. (with Schmeisser, Gerhard) An extremal problem for polynomials with a prescribed zero. II. **(81j:30003)**
 Schmeisser, Gerhard See Rahman, Q. I., **(81j:30003)**
 Stoliński, Stanisław (φ, ψ)-convex functions. **(81m:26006)**

26D10 Inequalities involving derivatives and differential and integral operators

- Beesack, Paul R. Elementary proofs of some Opial-type integral inequalities. **81g:26006**
 A simpler proof of two inequalities of Brodie and Everitt. **81a:26011**
 Bondge, B. K. (with Pachpatte, B. G.; Walter, Wolfgang) On generalized Wendroff-type inequalities and their applications. **81g:26007**
 Burkhill, H. Sequences characterizing the sine function. **81k:26013**
 Đorđević, Radovan Ž. (with Milovanović, Gradimir V.; Pečarić, Josip E.) Some estimates of L^p norm on the set of continuously-differentiable functions. **81h:26013**
 Helmig, Hans P. Variations of Hardy's inequality. **81g:26008**
 Hou, Ming Shu An inequality of Z. Opial. (Chinese) **81i:26013**
 Kokilashvili, V. M. On Hardy's inequalities in weighted spaces. (Russian. Georgian and English summaries) **81i:26014**
 Konovalov, V. N. Supplement to A. N. Kolmogorov's inequalities. (Russian) **81f:26011**
 Kreith, Kurt (with Swanson, Charles A.) Higher order Wirtinger inequalities. **81c:26013**
 Levine, Howard A. An estimate for the best constant in a Sobolev inequality involving three integral norms. **81m:26009**
 Milovanović, Gradimir V. See Đorđević, Radovan Ž.; et al. **81h:26013**
 Pachpatte, B. G. On some integro-differential inequalities similar to Wendroff's inequality. **81b:26010**
 On some new integral inequalities involving functions and their derivatives. **81e:26015**
 On some fundamental partial integral inequalities. **81a:26012**
 See also Bondge, B. K.; et al. **81g:26007**
 Pečarić, Josip E. See Đorđević, Radovan Ž.; et al. **81h:26013**
 Redheffer, Raymond (with Walter, Wolfgang) Inequalities involving derivatives. **81i:26012**

- Sree Hari Rao, V. Integral inequalities of Gronwall type for distributions. **81a:26013**
 Swanson, Charles A. See Kreith, Kurt, **81c:26013**
 Walter, Wolfgang See Redheffer, Raymond, **81i:26012** and Bondge, B. K.; et al. **81g:26007**

secondary classifications:

- Buslaev, A. P. The best approximation of a differentiation operator. (Russian) **(81b:42001)**
 Din' Zang (with Tihomirov, V. M.) Inequalities for derivatives in the metric of L_p . (Russian. English summary) **(81h:42017)**
 Elcrat, Alan R. (with MacLean, H. Alan) Weighted Wirtinger and Poincaré inequalities on unbounded domains. **(81k:49033)**
 Fujii, Nobuhiko A maximal inequality for H^1 -functions on a generalized Walsh-Paley group. **(81b:42070)**
 MacLean, H. Alan See Elcrat, Alan R., **(81k:49033)**
 Pepe, Luigi The Sobolev-Poincaré inequality. (Italian. English summary) **(81c:46026)**
 Reddy, K. Narsimha Integral inequalities and applications. **(81d:34010)**
 Rubinstein, Zalman Norm estimates relating polynomials and their derivatives. **(81f:41016)**
 Tihomirov, V. M. See Din' Zang, **(81h:42017)**

26D15 Inequalities for sums, series and integrals

- Ahlsvede, Rudolf (with Daykin, David E.) Integral inequalities for increasing functions. **81b:26011**
 Bondge, B. K. (with Pachpatte, B. G.) On some fundamental integral inequalities in two independent variables. **81b:26012**
 Burlachenko, V. P. (with Sidenko, M. I.) On improving the solutions of integral inequalities of the Gronwall-Bellman type. (Russian) **81m:26010**
 Clumming, Achim Disconjugacy and integral inequalities. **81j:26019**
 Dancs, S. (with Uhrin, B.) On a class of integral inequalities and their measure-theoretic consequences. **81g:26009**
 Das, P. C. (with Sharma, R. R.) Some Stieltjes integral inequalities. **81c:26014**
 Das Gupta, Somesh Brunn-Minkowski inequality and its aftermath. **81m:26011**
 Daykin, David E. See Ahlsvede, Rudolf, **81b:26011**
 DeTemple, Duane W. (with Robertson, Jack M.) On generalized symmetric means of two variables. **81b:26014**
 Diananda, P. H. Some inequalities related to an inequality of Mathieu. **81i:26016**
 Goodman, T. N. T. (with Lee, Seng Luan) Inequalities involving periodic sequences. **81c:26010**
 Haber, Seymour An elementary inequality. **81b:26013**
 Kufner, Alois (with Triebel, Hans) Generalizations of Hardy's inequality. **81a:26014**
 Lee, Cheng Shyong On some generalization of inequalities of Opial, Yang and Shum. **81j:26020**
 Lee, Seng Luan See Goodman, T. N. T., **81c:26010**
 Lopes, Alexandru On two inequalities of Karamata. **81i:26017**
 Madevski, Zivko A consequence of the Čebyšev inequality. (Macedonian. French summary) **81f:26013**
 Mahajan, Arvind A Bessel function inequality. **81h:26015**
 Maksimović, Dragoslav M. A short proof of generalized Hadamard's inequalities. **81g:26010**
 Martić, Branišlav On some interpolating inequalities. **81e:26011**
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 Milovanović, Igor Ž. See Milovanović, Gradimir V., **81g:26011**
 Neta, Beay On determination of best-possible constants in integral inequalities involving derivatives. **81m:26014**
 Pachpatte, B. G. On a class of integral inequalities of Bellman-Bihari type. **81g:26012**
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 Pečarić, Josip E. On the Jensen-Steffensen inequality. **81i:26019**
 See also Vasić, Petar M., **81g:26014**; Vasić, Petar M., **81h:26016** and Milovanović, Gradimir V., **81i:26018**
 Prochan, Frank (with Sethuraman, Jayaram) Two generalizations of Muirhead's theorem. **81c:26015**
 Ráb, Miloš Linear integral inequalities. **81c:26016**
 Robertson, Jack M. See DeTemple, Duane W., **81b:26014**
 Ruch, Ernst (with Schraner, Rudolf; Seligman, Thomas H.) Generalization of a theorem by Hardy, Littlewood, and Pólya. **81m:26015**
 Russell, A. On certain fourth-order integral inequalities. **81b:26014**
 Sadikova, R. H. A general class of inequalities containing the Steffensen inequality and its generalization. (Russian) **81j:26021**
 Schraner, Rudolf See Ruch, Ernst; et al., **81m:26015**
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 Stanković, Ljubomir R. See Vasić, Petar M., **81a:26015**
 Stroock, Daniel W. Some remarks about Beckner's inequality. **81d:26009**
 Triebel, Hans See Kufner, Alois, **81a:26014**
 Uhrin, B. See Dancs, S., **81g:26009**
 Vasić, Petar M. (with Stanković, Ljubomir R.) Some inequalities for convex functions. **81a:26015**

(with Pečarić, Josip E.) On the Jensen inequality for monotone functions.

81g:26014

(with Pečarić, Josip E.) On the Jensen inequality. 81h:26016

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Convexity and inequalities. 81c:26017

An extension of two sequences of inequalities of Mitrinović and Vasić. 81h:26017

On a Ky Fan inequality of the complementary A-G type and its variants. 81h:26015

Yeh, Cheh Chih Wendroff's inequality in n independent variables. 81k:26014

secondary classifications:

Anderson, T. W. (with Taylor, John B.) An inequality for a sum of quadratic forms with applications to probability theory. (81m:15020)

Beesack, Paul R. Comparable L_p -norms of subadditive functions. (81m:46045)

Bondge, B. K. (with Pachpatte, B. G.; Walter, Wolfgang) On generalized Wendroff-type inequalities and their applications. (81g:26007)

Dubuc, Serge ★Problèmes d'optimisation en calcul des probabilités. (French)

[Optimization problems in the theory of probabilities] (81a:60002)

Elliott, P. D. T. A. High-power analogues of the Turán-Kubilius inequality, and an application to number theory. (81m:10082)

Pachpatte, B. G. (with Singare, S. M.) Discrete generalized Gronwall inequalities in three independent variables. (81m:39006)

See also Bondge, B. K.; et al., (81g:26007)

Pera, M. C. Existence and uniqueness of the solution of a class of integral equations with retarded vector argument. (Bulgarian. Russian and English summaries) (81k:45013)

Redheffer, Raymond (with Smith, Carey) On a surprising inequality of Goldberg and Straus. (81e:15006)

Rubio de Francia, José L. Vector-valued inequalities for operators in L^p -spaces. (81g:42024)

Singare, S. M. See Pachpatte, B. G., (81m:39006)

Smith, Carey See Redheffer, Raymond, (81e:15006)

Spiegelman, Clifford H. A univariate extension of Jensen's inequality. (81m:60031)

Stolarsky, Kenneth B. A stronger logarithmic inequality suggested by the entropy inequality. (81c:94014)

Taylor, John B. See Anderson, T. W., (81m:15020)

Walter, Wolfgang See Bondge, B. K.; et al., (81g:26007)

26D20 Other analytical inequalities

Kraft, Olaf (with Mathar, Rudolf; Schaefer, Martin) A refined geometric-arithmetic means inequality for integers. 81b:26016

Madevski, Žilko A procedure for obtaining inequalities. (Macedonian summary) 81c:26018

Mahajan, Arvind See Ross, Dieter K., 81g:26015

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Milovanović, Gradimir V. (with Milovanović, Igor Ž.) A generalization of a problem given by D. S. Mitrinović. 81h:26022

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Misc, Henryk Rearrangement inequalities. 81k:26015

Ross, Dieter K. (with Mahajan, Arvind) An inequality for the ratio of two quadratic forms. 81g:26015

Schaefer, Martin See Kraft, Olaf; et al., 81b:26016

Whittington, S. G. See Wilker, J. B., 81c:26019

Wilker, J. B. (with Whittington, S. G.) Extension of a theorem on supermultiplicative functions. 81c:26019

secondary classifications:

Klamkin, Murray S. Extensions of a triangle inequality of Carlitz. (81i:52010)

Madevski, Žilko A note on the obtaining analytic inequalities from the geometric ones. (Macedonian summary) (81i:51019)

Verblunsky, S. An extension of the inequality of Rajchman-Zygmund. (81g:42009)

26D99 None of the above, but in this section

Landsberg, Peter T. A generalized mean. 81i:26023

secondary classifications:

Lozanovskii, G. Ja. Characterization of the power function by means of functional inequalities. (Russian) (81b:39007)

Nedoma, Josef Complete extension of a convex function. (81c:26008)

Rosenbloom, P. C. Inequalities for moments and means. (81j:44006)

26Exx Miscellaneous topics [See also 58Cxx.]

26E05 Real-analytic functions

secondary classifications:

Nall, V. A. Topological invariants of germs of analytic mappings and area preserving mappings, and their application to analytic differential equations in CP^2 . (Russian) (81i:58029)

Sonnen, F. Representations of distributions in R^3 by regular functions of a quaternion variable. (81h:46044)

26E10 C^∞ -functions, quasi-analytic functions

Černjavskii, A. G. Operator quasianalyticity for functions of several variables. (Russian) 81m:26016

Hrytan, V. G. Representation of an infinitely differentiable function as a sum of functions belonging to quasi-analytic classes. (Russian) 81a:26016

Pham-Gia, T. Extension of a result of S. Mandelbrojt. 81a:26017

secondary classifications:

Belickii, G. R. Normal form for germs of C^∞ -mappings. (Russian) (81k:58011)

Franke, L. E. On regularized distance and related functions. (81a:26008)

26E15 Calculus of functions on infinite-dimensional spaces

Shapiro, Victor L. Saddle points and Ritz-Galerkin approximations. 81f:26015

secondary classifications:

Nachbin, Leopoldo On the closure of modules of continuously differentiable mappings. (81g:58004)

Papaghiuc, Necul Sur le théorème d'inversion locale pour des applications entre des espaces localement convexes. (Romanian summary) (81k:58005)

26E20 Calculus of functions taking values in infinite-dimensional spaces

Di Bari, Cristina Maria On the differentiability of value functions in a reflexive real Banach space. (Italian. English summary) 81h:26018

Kandil, M. A. Vector-valued functions of strong bounded variation. (Arabic summary) 81d:26010

Satyanshayan Rao, Arubindi A note on continuously differentiable abstract functions. 81k:26016

26E25 Set-valued functions [See also 54C60.]

26E30 Non-Archimedean analysis [See also 12J25.]

secondary classifications:

Schikhof, W. H. ★Non-Archimedean calculus. (81b:46007)

Non-Archimedean differentiation. (81b:46006)

Tsurumi, K. The characterization theorem of Baire functions of class 1 over a non-Archimedean valued field. (81c:12031)

26E35 Nonstandard analysis [See also 03H05.]

secondary classifications:

Davis, Martin ★Прикладной нестандартный анализ. (Russian) [Applied nonstandard analysis] (81c:03064)

(Soprnov, S. F.) See Davis, Martin, (81c:03064)

Tall, David Looking at graphs through infinitesimal microscopes, windows and telescopes. (81g:03083)

(Uspenskii, V. A.) See Davis, Martin, (81c:03064)

26E99 None of the above, but in this section

Lipsey, Za. Parametrization of nonsmooth boundaries for mixed type boundary value problems. 81m:26017

secondary classifications:

Belickii, G. R. ★Нормальные формы, инварианты и локальные отображения. (Russian) [Normal forms, invariant and local mappings] (81h:58014)

Bridges, Douglas S. Geometric intuition and elementary constructive analysis. (81f:03070)

Demuth, Oswald Some questions of the theory of constructive functions of a real variable. (Russian. English and Czech summaries) (81g:03068)

(with Kučera, A.) Remarks on constructive mathematical analysis. (81g:03072)

Frank, M. J. (with Schweizer, Berthold) On the duality of generalized infimal and supremal convolutions. (Italian summary) (81a:60017)

Hiriart-Urruty, Jean-Baptiste Mean value theorems in nonsmooth analysis. (81h:58011)

Homagk, Fritz Zur intuitionistischen Kennzeichnung reeller Funktionen auf substantiellen Intervallen. (81f:03069)

Kahn, Donald W. ★Introduction to global analysis. (81i:58001)

Kučera, A. See Demuth, Oswald, (81g:03072)

Myćielski, Jan On the conjugates of the function $2|x| - 1$ in $[-1, 1]$. (81h:54013)

Schweizer, Berthold See Frank, M. J., (81a:60017)

28-XX MEASURE AND INTEGRATION (For analysis on manifolds, see 58-XX.)

secondary classifications:

Ellerman, David P. (with Rota, Gian-Carlo) A measure-theoretic approach to logical quantification. (81c:03027)

Rota, Gian-Carlo See Ellerman, David P., (81c:03027)

28-01 Elementary exposition, textbooks

Cohn, Donald L. ★Measure theory. 81k:28001

de Guzmán, Miguel (with Rubio, Baldozero) ★Integración: teoría y técnicas. (Spanish)

[Integration: theory and technique] **81j:28001**

Michel, Horst ★Mass- und Integrationstheorie. I. (German) [Measure and integration theory. I.] **81k:28002**

Rubio, Baldomero See de Guzmán, Miguel, **81j:28001**

Teljakovskiĭ, S. A. ★Сборник задач по теории функций действительного переменного. (Russian) [A collection of problems in the theory of functions of a real variable] **81j:28002**

secondary classifications:

Gvišiani, A. D. See Kirillov, A. A., (**81i:46002**)

Kirillov, A. A. (with Gvišiani, A. D.) ★Теоремы и задачи функционального анализа. (Russian) [Theorems and problems of functional analysis] (**81i:46002**)

28-02 Advanced exposition (research surveys, monographs, etc.)

Constantinides, Cornelia ★Duality in measure theory. **81i:28001**

Harazivili, A. B. ★Некоторые вопросы функционального анализа и их приложения. (Russian) [Some questions of functional analysis and their applications] **81k:28003**

Oxtoby, John C. ★Measure and category. **81j:28003**

secondary classifications:

Rao, M. M. ★Stochastic processes and integration. (**81i:60002**)

28-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Mackey, George W. Harmonic analysis as the exploitation of symmetry—a historical survey. (**81d:01017**)

28-04 Explicit machine computation and programs (not the theory of computation or programming)

28-06 Proceedings, conferences, etc.

(Horowitz, Shlomo) See Collection: Ergodic theory, **81b:28001**

(Kötzw, Dietrich) See Measure theory, **81d:28001**

Collection:

Ergodic theory ★A collection of invited papers on ergodic theory. **81b:28001**

Conference:

Measure Theory ★Measure theory, Oberwolfach 1979. **81d:28001**

Ergodic theory ★A collection of invited papers on ergodic theory. **81b:28001**

Functions of sets ★Функции множеств. (Russian) [Functions of sets] **81a:28001**

Measure theory ★Measure theory, Oberwolfach 1979. **81d:28001**

Oberwolfach ★Measure theory, Oberwolfach 1979. **81d:28001**

secondary classifications:

(Arsenina, V. Ja.) See Ljapunov, A. A., (**81c:01033**)

(Kozlova, Z. I.) See Ljapunov, A. A., (**81c:01033**)

Ljapunov, A. A. ★Вопросы теории множеств и теории функций. (Russian) [Questions of set theory and function theory] (**81c:01033**)

(Štegl'kov, E. A.) See Ljapunov, A. A., (**81c:01033**)

(Sirazdinov, S. H.) See Random processes and mathematical statistics, (**81a:60004**)

(Sobolev, S. L.) See Ljapunov, A. A., (**81c:01033**)

(Taimanov, A. D.) See Ljapunov, A. A., (**81c:01033**)

Bibliography:

Ljapunov, A. A. See Ljapunov, A. A., (**81c:01033**)

Biography:

Ljapunov, A. A. See Ljapunov, A. A., (**81c:01033**)

Mathematical statistics ★Вероятностные процессы и математическая статистика. (Russian) [Random processes and mathematical statistics] (**81a:60004**)

Random processes and mathematical statistics ★Вероятностные процессы и математическая статистика. (Russian) [Random processes and mathematical statistics] (**81a:60004**)

28Axx Classical measure theory

28A05 Classes of sets (Borel fields, σ -rings, etc.), measurable sets, Suslin sets, analytic sets [See also 04A15, 26A21, 54H05.]

Bourgain, Jean Decompositions in the product of a measure space and a Polish space. **81a:28002**

Datta, Jayantakumar On certain property of measurable sets in E^n . **81i:28002**

Del Prete, Immacolata The extension of countably additive functions. (Italian. English summary) **81f:28001**

Harazivili, A. B. The axiom of choice in the general theory of systems. (Russian. Georgian and English summaries) **81c:28001**

Šapiro, B. Z. See Vainšteĭn, A. D., **81h:28001**

Shapiro, Joel H. Hausdorff measure and Carleson thin sets. **81m:28001**

Vainšteĭn, A. D. (with Šapiro, B. Z.) Structure of a set of \bar{a} -representable numbers. (Russian) **81h:28001**

secondary classifications:

Bukovský, Lev Any partition into Lebesgue measure zero sets produces a nonmeasurable set. (Russian summary) (**81h:03095**)

Friedman, Harvey On definability of nonmeasurable sets. (**81m:03062**)

Frolík, Zdeněk The concept of nonseparable analytic set. (**81m:04002**)

Luzin sets are additive. (**81k:54013**)

Gzregorik, E. On a paper by Karel Priky concerning Ulam's problem on families of measures [Monatsh. Math. **81** (1976), no. 1, 41–57; MR **53** #2689]. (**81i:04005**)

Jayne, John E. (with Rogers, C. A.) Borel isomorphisms of the first level. (Russian) (**81h:54039**)

(with Rogers, C. A.) Borel isomorphisms at the first level. I. (**81h:54048a**)

(with Rogers, C. A.) Borel isomorphisms at the first level. II. (**81h:54048b**)

Jumilla, Heikki J. K. On countability of point-finite families of sets. (**81j:54032**)

Kellerer, Hans G. Baire sets in product spaces. (**81g:28005**)

Louveau, Alain σ -idéaux engendrés par des ensembles fermés et théorèmes

d'approximation. (English summary) (**81j:03078**)

A separation theorem for Σ_1^1 sets. (**81j:04001**)

Nathanson, Melvyn B. Sums of measurable sets. (**81b:10036**)

Rao, B. V. See Rao, K. P. S. Bhaskara, (**81g:54043**)

Rao, K. P. S. Bhaskara (with Rao, B. V.) On the isomorphism problem for analytic sets.

(Russian summary) (**81g:54043**)

Rogers, C. A. See Jayne, John E., (**81h:54039**); Jayne, John E., (**81h:54048a**) and

Jayne, John E., (**81h:54048b**)

Šabo, Michal Classification and extension by the transfinite induction. (Russian

summary) (**81h:06006**)

Węglarz, Bogdan Some σ -fields of subsets of reals. (**81i:03075**)

28A10 Real- or complex-valued set functions

Klimkin, V. M. (with Nikiforov, V. M.) Regular nonadditive set functions. (Russian) **81i:28003**

Liviš, B. D. Superadditive functions on Boolean algebras. (Russian) **81d:28002**

Maharam, Dorothy (with Stone, A. H.) One-to-one functions and a problem on subfields. **81j:28004**

Nikiforov, V. M. See Klimkin, V. M., **81i:28003**

Stone, A. H. See Maharam, Dorothy, **81j:28004**

Tricot, Claude, Jr. Rarefaction indices. **81j:28005**

secondary classifications:

Del Prete, Immacolata The extension of countably additive functions. (Italian. English summary) (**81f:28001**)

28A12 Contents, measures, outer measures, capacities

Aljakin, V. A. Decomposition of superadditive set functions. (Russian) **81j:28006**

Bruneau, Michel Les mesures σ -finies sur \mathbb{R} . **81c:28002**

Dérivation et intégration. **81m:28002**

Di Piazza, L. (with Maniscalco, C.; Marino, T.) Heredity of Carathéodory measures. (Italian. English summary) **81f:28002**

Doss, Raouf The Hahn decomposition theorem. **81g:28001**

Harazivili, A. B. A property of a Hamel basis. (Russian. Georgian and English summaries) **81a:28003**

A covering of the continuum. (Russian. Georgian and English summaries) **81j:28007**

The Szpilrain-Marczewski axiom for extensions of the Lebesgue measure. (Russian. Georgian and English summaries) **81h:28004**

Johnson, Roy A. Extending a measure from a ring to a sigma-ring. **81g:28002**

Lubyev, M. N. On the problem of Dobrakov. (Russian) **81d:28003**

Maniscalco, C. See Di Piazza, L.; et al., **81f:28002**

Marino, T. See Di Piazza, L.; et al., **81f:28002**

Štěpánek, Ján Integral with respect to a pre-measure. (Russian summary) **81j:28008**

Świątkowski, T. Properties of a function of E. Marczewski. **81h:28002**

Talagrand, Michel A simple example of pathological submeasure. **81k:28005**

Topsoe, Flemming On construction of measures. **81h:28003**

Approximating pavings and construction of measures. **81h:28002**

Trillas Ruiz, Enrique On a methodology for proofs of σ -measurability. (Spanish) **81g:28003**

v. Weizsäcker, Helmut Remark on extremal measure extensions. **81i:28004**

secondary classifications:

Antosik, P. Some characterizations of measures and smooth functions in distributions. (**81b:46055**)

(with Ligzga, Jan) Products of measures and functions of finite variations. (**81b:46056**)

Armstrong, Thomas E. (with Priky, Karel) κ -finiteness and κ -additivity of measures on sets and left invariant measures on discrete groups. (**81k:28014**)

Bočvar, D. A. (with Fukson, V. I.) Estimate of the differences of outer and inner measures. (Russian) (**81j:03042**)

Fukson, V. I. See Bočvar, D. A., (**81j:03042**)

Halfon, M. H. On the theory of continuation of vector functions of a set. (Russian) (**81m:28008**)

Klement, Erich Peter Extension of probability measures to fuzzy measures and their characterization. (See **81m:03067**)

Klimkin, V. M. (with Nikiforov, V. M.) Regular nonadditive set functions. (Russian) (**81i:28003**)

Ligzga, Jan See Antosik, P., (**81b:46056**)

Matý, Jan The Peano curve and the density topology. (**81e:54037**)

Nanopoulos, Photios Mesures de probabilité sur les entiers et ensembles progressifs. (**81b:10035**)

Nikiforov, V. M. See Klimkin, V. M., (**81i:28003**)

Prade, Henri M. Nomenclature of fuzzy measures. (See **81m:03067**)

Priky, Karel See Armstrong, Thomas E., (**81k:28014**)

Rao, B. V. See Rao, K. P. S. Bhaskara, (**81g:54005**)

- Rao, K. P. S. Bhaskara (with Rao, B. V.) Mixtures of nonatomic measures. III. (81c:28005)
- Reynolds, George See Rice, Michael D., (81j:54059)
- Rice, Michael D. (with Reynolds, George) Weakly Borel-complete topological spaces. (81j:54059)
- Sacki, Sadahiro On convolution squares of singular measures. (81i:42005)
- Schwaha, Werner Conditions for a fuzzy probability measure to be an integral. (See 81m:03067)
- Shapiro, Joel H. Hausdorff measure and Carleson thin sets. (81m:28001)

28A15 Abstract differentiation theory, differentiation of set functions [See also 26A24.]

- Bongiorno, Benedetto Differentiation of set functions. (Italian summary) 81c:28003
(with Vetro, Pasquale) A theorem on the representation of integrals. (Italian English summary) 81f:28003
- Bruneau, Michel Sur la dérivation approximative. 81d:28004
- Córdoba, Antonio Maximal functions: a problem of A. Zygmund. 81i:28005
- Georgiou, P. On "idempotent" liftings. 81k:28006
- Matilla, Pertti Differentiation of measures on uniform spaces. 81h:28004
- Topac, Flemming Thin trees and geometrical criteria for Lebesgue nullsets. 81g:28004
- Vetro, Pasquale See Bongiorno, Benedetto, 81f:28003

secondary classifications:

- Bruneau, Michel Densité d'une fonction. (81d:26006)
- Christensen, Jens Peter Reus A survey of small ball theorems and problems. (81h:28009)
- Córdoba, Antonio Maximal functions, covering lemmas and Fourier multipliers. (81f:42017)
- Neugebauer, C. J. On the Hardy-Littlewood maximal function and some applications. (81f:42039)
- Rubio, Baldomero The maximal function and derivation of integrals in a space of locally integrable functions. (81i:42019)
- Vol'ck, Alessio Differentiation of Daniell integrals. (81i:28019)

28A20 Measurable and nonmeasurable functions, sequences of measurable functions, modes of convergence

- Blakney, Simmie S. Lusin's theorem in an abstract space. (See 81c:00004)
- Brooks, James K. (with Chacon, R. V.) Continuity and compactness of measures. 81m:28003
- Bucchioli, D. (with Goldman, André) Convergence presque partout des suites de fonctions mesurables et applications. 81i:28006
(with Goldman, André) Sur la convergence presque partout des suites de fonctions mesurables. 81e:28001
- Chacon, R. V. See Brooks, James K., 81m:28003
- Dal Maso, Gianni Integral representation on BV(Ω) of Γ -limits of variational integrals. 81i:28007
- Goldman, André See Bucchioli, D., 81e:28001 and Bucchioli, D., 81i:28006
- Men'šov, D. E. Universal sequences of functions. (See 80c:00006)
- Musmann, Dieter (with Plachky, Detlef) Die Cantorsche Abbildung ist ein Borel-Isomorphismus. 81h:28005
- Plachky, Detlef See Musmann, Dieter, 81h:28005
- Pu, Huan Wen (with Pu, Huo Hui Min) Measurability of approximate derivatives. 81i:28008
- Pu, Huo Hui Min See Pu, Huan Wen, 81i:28008
- Stachowiak-Gulka, Danuta Remarks on topological properties of the class $\varphi(L)$. II. 81b:28003
- Zobel, Robert Zum Begriff der Borelmeßbarkeit. 81h:28006

secondary classifications:

- Abramson, Fred G. A simplicity theorem for amoebas over random reals. (81i:03079)
- Falconer, K. J. Continuity properties of k -plane integrals and Besicovitch sets. (81c:53067)
- Men'šov, D. E. On limit functions of trigonometric series. (See 80c:00006)
- Oskolkov, K. I. Quantitative estimates of N. N. Luzin's C-property for classes of integrable functions. (81a:26003)
- Richardson, Gary D. Applications of convergence spaces. (81d:54001)
- Rubio de Francia, José L. The space of convergence in measure and its dual. (Spanish English summary) (81k:46026)
- Talagrand, Michel Une remarque sur les espaces de Banach mesure-compact. (81h:46037)

28A25 Integration with respect to measures and other set functions

- Bandt, Christoph (with Peters, W.) Extension of semimeasures and topologization of vector structures. (Russian) 81h:28007
- Cheng, Kong Ming On a theorem concerning uniform integrability. 81b:28004
- Durst, Richard B. The connection between lim sup and uniform integrability. 81f:28004
- Hertel, Elke Ein algebraischer Begriff des invarianten Maßes und invariante Integration in abstrakten Räumen. 81b:28005
- Isakov, V. N. See Porokhin, A. G., 81e:28002
- Kukowski, Bogdan Some remarks on the theory of the integral. I. 81b:28006
- Liese, Friedrich Ein Kriterium für die gleichmäßige Integrierbarkeit in σ -endlichen Maßräumen. (Russian and English summaries) 81j:28009
- Peters, W. See Bandt, Christoph, 81h:28007
- Porokhin, A. G. (with Isakov, V. N.) Integrals with respect to an outer measure. (Russian) 81e:28002
- Šipol, Ján Nonlinear integrals. (Russian summary) 81d:28005

secondary classifications:

- Bellay, J.-M. A representation theorem and applications to topological groups. (81k:43010)
- Danes, S. (with Uhrin, B.) On a class of integral inequalities and their measure-theoretic consequences. (81g:26009)
- Das, A. G. (with Lahiri, B. K.) On RS-integral. (81d:26004)
- Frontena, Jean (with Tellez-Arenas, A.) A time-dependent Schrödinger equation deduced from time evolution in a subquantum model. (Italian and Russian summaries) (81g:81043)
- Lahiri, B. K. See Das, A. G., (81d:26004)
- Šipol, Ján Integral representations of nonlinear functionals. (Russian summary) (81d:46052)
- Stachowiak-Gulka, Danuta Remarks on topological properties of the class $\varphi(L)$. II. (81b:28003)
- Tellez-Arenas, A. See Frontena, Jean, (81g:81043)
- Uhrin, B. See Danes, S., (81g:26009)

28A33 Spaces of measures, convergence of measures [See also 46E27, 60Bxx.]

- Denny, J. L. The support of discrete extremal measures with given marginals. 81a:28004
- Faulkner, Gary D. (with Huneycutt, J. E., Jr.) Convolution iterates of Banach algebra valued measures. 81c:28004
- Huneycutt, J. E., Jr. See Faulkner, Gary D., 81c:28004
- Koksh, O. G. Weak convergence of measures and convergence of moments. (Russian) 81d:28006
- Kupka, Joseph Uniform boundedness principles for regular Borel vector measures. 81k:28008

secondary classifications:

- Brooks, James K. (with Chacon, R. V.) Continuity and compactness of measures. (81m:28003)
- Chacon, R. V. See Brooks, James K., (81m:28003)
- Hasumi, Morisuke (with Yabuta, Kōzō) Monotonicity and continuity. (81i:26003)
- Yabuta, Kōzō See Hasumi, Morisuke, (81i:26003)

28A35 Measures and integrals in product spaces

- (Arhangel'skii, A. V.) See Wage, Michael L., 81i:28010
- Choksi, J. R. (with Fremlin, David H.) Completion regular measures on product spaces. 81m:28004
- Edwards, D. A. On the existence of probability measures with given marginals. (French summary) 81i:28009
- Falconer, K. J. The determination of a function from its projections. 81m:28005
- Fremlin, David H. See Choksi, J. R., 81m:28004
- Kellerer, Hans G. Baire sets in product spaces. 81g:28005
- Rao, B. V. See Rao, K. P. S. Bhaskara, 81a:28005
- Rao, K. P. S. Bhaskara (with Rao, B. V.) Mixtures of nonatomic measures. III. 81a:28005
- Riečan, Beloslav On the Kolmogoroff theorem and the infinite product of probability spaces. (Slovak and Russian summaries) 81j:28010
- Wage, Michael L. The product of Radon spaces. (Russian) 81i:28010

secondary classifications:

- Dow, Alan (with Ginsburg, John) Integration on $[0, 1]^*$. (81f:28011)
- Gardner, R. J. (with Pfeffer, Washek Frank) Some undecidability results concerning Radon measures. (81e:54022)
- Ginsburg, John See Dow, Alan, (81f:28011)
- Pfeffer, Washek Frank See Gardner, R. J., (81e:54022)
- Ramachandran, D. ★ Perfect measures. Part I. (81h:60005a)
★ Perfect measures. Part II. (81h:60005b)
- Smolenski, Włodzimierz On quasi-invariance of product measures. (81i:60044)

28A50 Integration and disintegration of measures

- Johnson, Russell A. Disintegrating measures on compact group extensions. 81h:28009
- Kluvánek, Igor Remarks on bimeasures. 81k:28010
- Nghiem Đình Ngọc A remark on disintegrations with almost all components non- σ -additive. 81a:28006

secondary classifications:

- Ramachandran, D. ★ Perfect measures. Part I. (81h:60005a)
★ Perfect measures. Part II. (81h:60005b)

28A51 Lifting theory [See also 46G15.]

- Babiker, A. G. A. G. (with Strauß, Werner) Measure spaces in which every lifting is an almost σ -lifting. 81i:28011
(with Strauß, Werner) Almost strong liftings and τ -additivity. 81j:28011
- Strauß, Werner See Babiker, A. G. A. G., 81i:28011 and Babiker, A. G. A. G., 81j:28011

secondary classifications:

- Edgar, G. A. (with Talagrand, Michel) Liftings of functions with values in a completely regular space. (81g:46057)
- Johnson, Russell A. Strong liftings which are not Borel liftings. (81m:46061)

Lozert, Viktor A counterexample on measurable selections and strong lifting. (81g:28012)

Talagrand, Michel See Edgar, G. A., (81g:46057)

28A60 Measures on Boolean rings, measure algebras [See also 54H10.]

Chokaj, J. R. (with Simha, R. R.) Measurable transformations on homogeneous spaces. 81f:28005

Ivan, Floarea Separators algebra. 81c:28005

Kranz, Przemysław Measures on lattices. 81a:28007

Simha, R. R. See Chokaj, J. R., 81f:28005

28A75 Length, area, volume, other geometric measure theory [See also 26B15, 49F20.]

Barbieri, Francesco (with Tondi, Adriana) The Steiner inequality for infinite series and convergence in area. (Italian) 81f:28006

Borgato, Maria Teresa (with Pepe, Luigi) Approximability of open sets in \mathbb{R}^n of finite perimeter. (Italian. English summary) 81b:28007

Davies, Roy O. Two counterexamples concerning Hausdorff dimensions of projections. 81c:28006

Dont, Miroslav A note on the linear measure of Vituškin sets. (Czech. English summary) 81d:28007

Falconer, K. J. Sections of sets of zero Lebesgue measure. 81j:28012

Gardner, R. J. Results and conjectures on covering metric spaces. 81g:28006

Masi-Levitska, Peter Geometric theories of measure and area. 81k:28011

Marstrand, J. M. Packing planes in \mathbb{R}^3 . 81f:28007

Nishikawa, Togo Some examples relating surface area and the area integral. 81f:28008

Pepe, Luigi See Borgato, Maria Teresa, 81b:28007

Tondi, Adriana See Barbieri, Francesco, 81f:28006

secondary classifications:

de Acutis, Mimma Regularity of the minimal boundary with thin obstacles. (Italian) (81e:49035)

Baddeley, Adrian J. Absolute curvatures in integral geometry. (81k:52011)

Burton, G. R. Subspaces which touch a Borel subset of a convex surface. (81k:52008)

(Cirka, E. M.) See Harvey, Reese, (81b:32002)

Dekking, F. M. Variations on Peano. (81m:54066)

Goodey, Paul R. (with Schneider, Rolf) On the intermediate area functions of convex bodies. (81k:52010)

Harvey, Reese ★Голоморфные цепи и их границы. (Russian) [Holomorphic chains and their boundaries] (81b:32002)

Ragali, Marcello On the approximation and representation of the classical and generalized Burkill integral. (Italian) (81m:49046)

Schneider, Rolf See Goodey, Paul R., (81k:52010)

Tricot, Claude, Jr. Rarefaction indices. (81j:28005)

Väisälä, Jussi Dimension and measure. (81c:54056)

Well, Wolfgang On surface area measures of convex bodies. (81m:52014)

28A99 None of the above, but in this section

Kunderová, Pavla On the existence of conditional density functions. (Czech and Russian summaries) 81a:28008

Zaicev, G. Ju. Estimates of measures of sets of planes that are almost tangent to a compactum with bounded variations. (Russian) 81j:28013

secondary classifications:

(Klement, Erich Peter) See Proceedings: International Seminar on Fuzzy Set Theory, (81m:03067)

Schonbek, T. See Thompson, K. W., (81d:26008)

Thompson, K. W. (with Schonbek, T.) A problem of the Pompeiu type. (81d:26008)

Fuzzy set theory ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

Linz ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

Proceedings:

International Seminar on Fuzzy Set Theory ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

Seminar:

Fuzzy Set Theory ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

28Bxx Measures and integrals with values in abstract spaces

28B05 Vector-valued measures and integrals [See also 46G10.]

Anantharaman, R. (with Naimpally, S. A.) Boundedness and equicontinuity of measures and linear functionals. 81a:28009

Brook, Cecilia H. (with Graves, William H.) The range of a vector measure. 81c:28003

Burković, Davor On the completion of vector measures. 81b:28007

Cheney, C. A. (with de Korvin, André) Erratum: "The representation of linear operators on spaces of finitely additive set functions" [Proc. Edinburgh Math. Soc. (2) 20 (1976/77), no. 3, 233-242; MR 57 #12814]. 81c:28004

Choy, Stephen T. L. Vector and semigroup valued measures. 81c:28007

Debiève, Camille Intégration de fonctions scalaires par rapport à une mesure vectorielle. (English summary) 81f:28009

Dobrák, Ivan On integration in Banach spaces. III. (Russian summary) 81b:28008

On integration in Banach spaces. IV. 81m:28006

On integration in Banach spaces. V. 81m:28007

Flytzanis, Elias Linearly varying Banach-valued measures. 81c:28008

Găină, Stelian Sur les mesures vectorielles. 81b:28008

Graves, William H. See Brook, Cecilia H., 81c:28003

Hafizov, M. H. On Vitali's theorem on passage to the limit under the sign of an integral. (Russian) 81j:28014

On the theory of continuation of vector functions of a set. (Russian) 81m:28008

Janicka, Liliana Some measure-theoretical characterization of Banach spaces not containing l_1 . (Russian summary) 81i:28012

Kac, M. P. Measures with values in a space not containing c_0 . (Russian) 81b:28009

Khurana, Surjit Singh Weak sequential convergence in L^p and Dunford-Pettis property of L^p . 81g:28007

de Korvin, André See Cheney, C. A., 81c:28004

Kosek, Vladimír Bemerkung zum Bochner'schen Integral. (Czech and Russian summaries) 81m:28009

Kranz, Przemysław Order bounded measures and control measures. 81k:28012

Lubda, Iwo Universal measurability and summable families in tvs. 81c:28009

Massé, J. Claude Intégration dans les semi-groupes. 81c:28005

Muntean, Ioan Sur le théorème de convexité de Liapounoff. (Romanian summary) 81m:28010

Musiał, Kazimierz Martingales of Pettis integrable functions. 81m:28011

Naimpally, S. A. See Anantharaman, R., 81a:28009

Pachl, Jan K. A note on the Orlicz-Pettis theorem. 81c:28010

Pellaumail, Jean (with Weron, Aleksander) Integrals related to stationary processes and cylindrical martingales. (French summary) 81b:28010

Polexe, Raluca On the G-derivate of an additive set function and its properties. (Romanian. French summary) 81d:28006

Titova, T. N. Derivatives of vector-valued measures. (Russian) 81d:28009

Weron, Aleksander See Pellaumail, Jean, 81b:28010

Wuik, Witold The converse of Liapunov convexity theorem. 81b:28013

Ylisen, Karl On vector bimeasures. 81a:28010

secondary classifications:

Blondia, C. See Delanghe, Richard, (81g:28009)

Bourgain, Jean An averaging result for l^1 -sequences and applications to weakly conditionally compact sets in L^1 . (81i:46021)

Brandi, Primo (with Salvadori, Anna) The weak Burkil-Cesari integral. (Italian) (81a:49021)

Buchwalter, Henri Le rôle des partitions continues de l'unité dans la théorie des mesures scalaires ou vectorielles. (81c:46026)

Cooper, J. B. (with Schachermayer, W.) Saks spaces and vector-valued measures. (81a:46047)

Delanghe, Richard (with Blondia, C.) On measurable and partitionable vector-valued multifunctions. (81g:28009)

Duchon, Miloslav Convolution algebra of vector-valued measures. (81a:43002)

Fuhrmann, Paul A. Operator measures, selfadjoint operators and dynamical systems. (81m:47034)

Heble, M. P. Integral-geometric measures on homogeneous spaces in Hilbert space. (81b:58005)

Ivan, Floarea Sum-functions with values in Banach spaces. (81c:46040)

Klůvánek, Igor Remarks on bimeasures. (81b:28010)

de Korvin, André (with Roberts, Charles E., Jr.) Interchange of vector-valued integrals when the measures are Bochner or Pettis indefinite integrals. (81j:46069)

Kranz, Przemysław Measures on lattices. (81a:28007)

Kupka, Joseph Uniform boundedness principles for regular Borel vector measures. (81k:28008)

Maeda, Michie Some remarks on type $(\tau, 1)$ -cylindrical measures. (81c:28009)

Nieml, Hannu Stationary vector measures and positive definite translation invariant bimeasures. (81g:43010)

Nougues-Sainte-Beuve, Marie-France Some topological properties of vector measures with bounded variation and its applications. (81c:46050)

Measures vectorielles localement à variation bornée: quelques propriétés et applications. (81d:46051)

Polexe, Raluca Sur la représentation intégrale des mesures à valeurs dans des espaces d'opérations définies sur des champs de vecteurs. (Romanian summary) (81c:46040)

Roberts, Charles E., Jr. See de Korvin, André, (81j:46069)

Salvadori, Anna See Brandi, Primo, (81a:49021)

Satō, Ryōtarō Ratio limit theorems and applications to ergodic theory. (81k:47011)

Schachermayer, W. See Cooper, J. B., (81a:46047)

Sova, Miroslav The Laplace transform of exponentially bounded vector-valued functions (real conditions). (81a:44001)

Thibault, Lionel Espérances conditionnelles d'intégrales lipschitziens et d'intégrales semi-continues inférieurement. (81b:60006)

Espérances conditionnelles d'intégrales lipschitziens et d'intégrales semi-continues inférieurement. (English summary) (81m:60004)

28B10 Group- or semigroup-valued measures and integrals

Buckley, J. J. Zero-one measures and integrating topological group valued functions. 81j:28015

Crenshaw, J. A. (with Kirk, R. B.) Group valued, α -additive set functions. 81a:28011

Ghosh, Sankar Generalisations of a few theorems due to Ramachandran, Sazonov and Robbins to the case of random variables taking values in sets more abstract than the real line. 81b:28012

Kirk, R. B. See Crenshaw, J. A., 81a:28011

de Lucia, Anna Bruna D'Andrea (with de Lucia, Paolo) Decomposition theorems for finitely additive functions with values in a topological group. (Italian) 81b:28011

de Lucia, Paolo See de Lucia, Anna Bruna D'Andrea, 81b:28011

Šašel'ev, L. Ja. Inductive limits of sequences of continuous measures. (Russian) 81d:28010

Extension of continuous measures. (Russian) 81a:28012

secondary classifications:

- Aljakin, V. A. Functions of a set with values in a partially ordered semigroup with a basis and subtraction. (Russian) (81m:06037)
 Choy, Stephen T. L. Vector and semigroup valued measures. (81c:28007)
 Labuda, Iwo Spaces of measurable functions. (81j:46037)

28B15 Measures and integrals with values in general ordered systems

- Benderskii, O. Ja. The Vitali-Hahn-Saks theorem for semifield-valued measures. (Russian) 81i:28014
 Bhaumik, K. N. (with Kundu, S. K.) A Radon-Nikodým theorem in connection with a vector-valued integral. 81g:28008
 Kundu, S. K. (with Lahiri, B. K.) Integration of vector-valued functions. 81a:28013
 See also Bhaumik, K. N., 81g:28008
 Lahiri, B. K. See Kundu, S. K., 81a:28013

secondary classifications:

- Flachsmeyer, J. Underlying Boolean algebras of topological semifields. (81h:06012)
 Ivan, Floarea Separators algebra. (81c:28005)

28B20 Set-valued measures; integration of set-valued functions; measurable selections [See also 54C60, 54C65.]

- Aló, Richard A. (with de Korvin, André; Roberts, Charles E., Jr.) On some properties of continuous multimeasures. 81m:28012
 Blondia, C. See Delange, Richard, 81g:28009
 Delange, Richard (with Blondia, C.) On measurable and partitionable vector-valued multifunctions. 81g:28009
 Doberkat, Ernst-Erich Extending premeasures with compact convex values in a Fréchet space. 81d:28011
 Eriev, M. P. Some selection theorems for partitions of sets without topology. 81g:28010
 Godet-Thobie, C. Some results about multimeasures and their selectors. 81g:28011
 Graf, Siegfried Induced σ -homomorphisms and a parametrization of measurable sections via extremal preimage measures. 81d:28012
 Hackenbroch, Wolfgang A noncommutative Strassen disintegration theorem. 81j:28016
 Ioffe, A. D. Representation theorems for measurable multifunctions. 81j:28017
 de Korvin, André See Aló, Richard A.; et al., 81m:28012
 Losert, Viktor A counterexample on measurable selections and strong lifting. 81g:28012
 Mauldin, R. Daniel Some selection theorems and problems. 81g:28013
 Roberts, Charles E., Jr. See Aló, Richard A.; et al., 81m:28012
 Rupp, Werner Riesz-presentation of additive and σ -additive set-valued measures. 81i:28015
 Valadier, Michel Closedness in the weak topology of the dual pair L^1, C . 81j:28018

secondary classifications:

- Castaing, Charles Compacité, décomposabilité et applications à l'espérance conditionnelle multivoque dans certains espaces de Köthe-Orlicz. (81c:46019)
 Costé, Alain Sur les martingales multivoques. (English summary) (81i:60048)
 Lechicki, Alojzy On continuous and measurable multifunctions. (81j:54025)
 Srivastava, S. M. A representation theorem for G_0 -valued multifunctions. (81c:54026)

28B99 None of the above, but in this section

28Cxx Measures on spaces with additional structure [See also 46G12, 58C35, 58D20.]

28C05 Integration theory via linear functionals (Radon measures, Daniell integrals, etc.), representing measures

- Astala, Kari (with Vala, Klaus) On the measurability of vector-valued functions. 81m:28013
 Bachman, G. (with Sultan, A.) Applications of functional analysis to topological measure theory. 81i:28016
 Ingleby, Michael (with Tonga, Marcel) Operator-valued Daniell spaces and observables. 81j:28019
 Jiménez Guerra, Pedro Net convergence of projective limits of Radon measures. (Spanish) 81i:28017
 Kulcsárová, Olga Correspondence between subadditive integrals and small systems. (Russian summary) 81g:28014
 Panteleev, V. P. The construction of the Daniell integral in the case of weakened requirements for the class of fundamental functions. (Russian) 81i:28018
 Riečan, Boleslav On a lemma of G. Choquet. (Russian summary) 81k:28013
 Sultan, A. See Bachman, G., 81i:28016
 Tonga, Marcel See Ingleby, Michael, 81j:28019
 Vala, Klaus See Astala, Kari, 81m:28013
 Volčák, Alessio Differentiation of Daniell integrals. 81i:28019

secondary classifications:

- Badrikian, Albert Les fonctions semi-continues inférieurement et la théorie des mesures cylindriques. (81i:60005)
 Nequiss-Sainte-Beuve, Marie-France Some topological properties of vector measures with bounded variation and its applications. (81d:46050)
 Mesures vectorielles localement à variation bornée: quelques propriétés et applications. (81d:46051)
 Štěpán, Josef Probability measures with given expectations. (81h:46008)

28C10 Measures on topological groups, Haar measures, invariant measures [See also 43A05.]

- Armstrong, Thomas E. (with Priky, Karel) κ -finiteness and κ -additivity of measures on sets and left invariant measures on discrete groups. 81k:28014
 Fischer, Pal (with Skłodowski, Zbigniew) Christensen zero sets and measurable convex functions. 81d:28013
 Gaišun, I. V. Multidimensional discrete systems with invariant measure. (Russian. English summary) 81j:28020
 Harazivili, A. B. Absolutely nonmeasurable sets in abelian groups. (Russian. Georgian and English summaries) 81f:28010
 Kannan, V. (with Raju, S. Radhakrishneswara) The nonexistence of invariant universal measures of semigroups. 81b:28013
 Okazaki, Yoshiaki Admissible translates of measures on a topological group. 81h:28014
 Priky, Karel See Armstrong, Thomas E., 81k:28014
 Raju, S. Radhakrishneswara See Kannan, V., 81b:28013
 Skłodowski, Zbigniew See Fischer, Pal, 81d:28013
 de Vries, J. Integration on locally compact groups. (See 81k:22001)

secondary classifications:

- Batte Nicolau, Nadal (with Grané Manlleu, José) The Redfield topology of the lattice-ordered group of regular measures on a locally compact σ -compact topological space. (Spanish) (81i:22003)
 van Douwen, Eric K. A measure that knows which sets are homeomorphic. (81g:54009)
 Grané Manlleu, José See Batte Nicolau, Nadal, (81i:22003)
 Helmer, Dietrich Continuity of locally compact group actions with measurable orbit maps. (81e:22002)
 Macdonald, I. G. The volume of a compact Lie group. (81h:22018)
 Mack, Gerhard (with Petkova, V. B.) Comparison of lattice gauge theories with gauge groups Z_2 and $SU(2)$. (81g:81054)
 McGuire, James B. (with Thompson, Colin J.) Distribution of iterates of first order difference equations. (81m:58048)
 Muhlin, V. V. Invariant measures on semigroups and imbedding of topological semigroups in topological groups. (Russian) (81k:43003)
 Petkova, V. B. See Mack, Gerhard, (81g:81054)
 Sullivan, Dennis The density at infinity of a discrete group of hyperbolic motions. (81b:58031)
 Thompson, Colin J. See McGuire, James B., (81m:58048)

28C15 Measures on topological spaces (regularity of measures, etc.)

- Adamski, Wolfgang Note on support-concentrated Borel measures. 81d:28014
 (Angelakaki, A. V.) See Gardner, R. J.; et al., 81k:28016
 Babiker, A. G. A. G. Measurability of sections for maps representing certain measures. 81g:28015
 Brooks, James K. On a theorem of Dieudonné. 81j:28021
 Candeloro, Domenico (with Sacchetti, Anna Martellotti) Some problems concerning subadditive scalar measures and applications to the case of finite additivity. (Italian) 81c:28006
 Christensen, Jens Peter Reus A survey of small ball theorems and problems. 81h:28009
 Davies, Roy O. (with Ostaszewski, A. J.) Denumerable compact metric spaces admit isometry-invariant finitely additive measures. 81g:28016
 Deaibes, Ali Mesures uniformes maximales. 81k:28015
 Dimiev, S. G. Convex preorders and Deny's operators. 81h:28015
 Gardner, R. J. (with Pfeffer, Washek Frank) Interrelation between the regularity and σ -finiteness of Radon measures. (Russian) 81k:28016
 Johnson, Roy A. Another Borel measure-compact space which is not weakly Borel measure-complete. 81e:28007
 Mägerl, G. (with Namioka, I.) Intersection numbers and weak* separability of spaces of measures. 81j:28022
 Matsuzaki, Nagi On the joint measurability of the parametric Markovian transformations. 81k:28017
 Namioka, I. See Mägerl, G., 81j:28022
 Nikiforov, V. M. Some properties of regular nonadditive set functions. (Russian) 81c:28011
 Okada, Susumu (with Okazaki, Yoshiaki) On measure-compactness and Borel measure-compactness. 81e:28008
 Okazaki, Yoshiaki See Okada, Susumu, 81e:28008
 Ostaszewski, A. J. See Davies, Roy O., 81g:28016
 Pfeffer, Washek Frank See Gardner, R. J., 81h:28016
 Riečanová, Zdena On two strengthenings of regularity of measures. (Russian summary) 81j:28023
 Sacchetti, Anna Martellotti See Candeloro, Domenico, 81c:28006
 Tanaka, Jun-ichi A certain class of total variation measures of analytic measures. 81m:28014
 Veksel, A. I. Normal measures on compact spaces and order continuous functionals on vector lattices. 81h:28010
 Wheeler, Robert F. Topological measure theory for completely regular spaces and their projective covers. 81d:28015

secondary classifications:

- Choksi, J. R. (with Fremlin, David H.) Completion regular measures on product spaces. (81m:28004)
 Fremlin, David H. See Choksi, J. R., (81m:28004)
 Graf, Siegfried Induced σ -homomorphisms and a parametrization of measurable sections via extremal preimage measures. (81d:28012)
 Guilbart, C. Produits scalaires sur l'espace des mesures. (English summary) (81j:60006)
 Jacob, Pierre Convergence uniforme à distance finie de mesures signées. (81f:60006)
 Mattila, Pertti Differentiation of measures on uniform spaces. (81h:28004)

- Pollard, David Induced weak convergence and random measures. (81j:60008)
 Telgarsky, Rafailav Topological games and measures. (81b:90191)
 Torpe, F. On a suitable notion of convergence for the space of matrix summations. (81b:40005)
 Tupone, Flemming On construction of measures. (81h:28003)
 Wierczek, Andrzej Elementary proof of the measurable utility theorem. (81b:90167)

28C20 Measures and integrals in function spaces (Wiener measure, Gauss measure, etc.) [See also 58D20, 60B11.]

- Caraman, Petru p -capacity and conformal capacity in infinite-dimensional spaces. (81j:28024)
 Dow, Alan (with Ginsburg, John) Integration on $[0, 1]^p$. 81f:28011
 Egorov, A. D. Approximate formulas for continual integrals with respect to stationary Gaussian measures. (Russian. English summary) 81m:28015
 Ginsburg, John See Dow, Alan, 81f:28011
 Hertle, Alexander Gaussian surface measures and the Radon transform on separable Banach spaces. 81f:28020
 Johnson, G. W. (with Skoug, D. L.) Scale-invariant measurability in Wiener space. 81b:28016
 Maeda, Michie Some remarks on type $(\tau, 1)$ -cylindrical measures. 81e:28009
 Santillo, F. Dennis Stone space representation of vector functions and operators on L^1 . 81g:28017
 Skoug, D. L. See Johnson, G. W., 81b:28016

secondary classifications:

- Aref'eva, I. Ja. (with Azakov, S. I.) Renormalization and phase transition in the quantum CP^{N-1} model ($D=2, 3$). (81f:81048)
 Azakov, S. I. See Aref'eva, I. Ja., (81f:81048)
 Becker, Richard Quelques propriétés des mesures coniques. (81b:46009)
 Chervet, Simone Quelques nouveaux résultats sur les mesures cylindriques. (81h:60008)
 Chung, Dong M. On a class of symmetric stable probability measures on separable Fréchet spaces. (81h:60009)
 Dangelmayr, G. (with Güttinger, W.; Veit, W.) Semiclassical path integrals in terms of catastrophes. (81a:81033)
 Đinh Hùng Thắng (with Nguyễn Zui Tien) On symmetric stable measures on spaces l_p ($1 < p < +\infty$). (Russian summary) (81f:60008)
 Dudley, R. M. Central limit theorems for empirical measures. (81k:60029a)
 Corrections to: "Central limit theorems for empirical measures". (81k:60029b)
 See also Kuelbs, J., (81k:60040)
 Feller, M. N. Infinite-dimensional Laplace-Lévy differential operators. (Russian) (81d:35076)
 Gadiiev, V. G. The Fourier transform of some classes of functions of an infinite number of variables. (Russian) (81m:42013)
 Güttinger, W. See Dangelmayr, G.; et al., (81a:81033)
 Kondrat'ev, Ju. G. Wick powers of Gaussian generalized random processes. (Russian) (81f:81041)
 Korin, L. V. Approximation of probability measures on a Hilbert space by convex combinations of Dirac measures. (Russian) (81g:60007)
 Kuelbs, J. (with Dudley, R. M.) Log log laws for empirical measures. (81k:60040)
 Laha, R. G. (with Rohatgi, V. K.) Semistable measures on a Hilbert space. (81h:60010)
 Matvilchuk, K. S. Mathematical description of states of quantum Bose and Fermi systems by the method of partial density matrices of canonical ensemble. (Russian. English summary) (81i:82013)
 Mincer, B. (with Urbanik, K.) Completely stable measures on Hilbert spaces. (81g:60008)
 Nguyen Zui Tien See Đinh Hùng Thắng, (81f:60008)
 Noverraz, Philippe Sur la mesure gaussienne des ensembles polaires en dimension infinie. (81d:46054)
 Okazaki, Yoshiaki Wiener integral by stable random measure. (81a:60010)
 Rohatgi, V. K. See Laha, R. G., (81h:60010)
 Shigekawa, Ichiro Absolute continuity of probability laws of Wiener functionals. (81m:60097)
 Talagrand, Michel Les mesures gaussiennes qui ne sont pas de Radon. (English summary) (81m:60011)
 Urbanik, K. See Mincer, B., (81g:60008)
 Veit, W. See Dangelmayr, G.; et al., (81a:81033)

28C99 None of the above, but in this section

- Edgar, G. A. Measurability in a Banach space. II. 81d:28016

secondary classifications:

- Berg, Lothar Introduction of integrals in ordered abelian semigroups with zero element. (81b:46062)
 Poroshin, A. G. On the question of the normability of Boolean algebras with a continuous outer measure. (Russian) (81j:06019)

28Dxx Measure-theoretic ergodic theory [See also 22D40, 47A35, 54H20, 58Fxx, 60Fxx, 60G10.]

secondary classifications:

- (Horowitz, Shlomo) See Collection: Ergodic theory, (81b:28001)
 Collection:
 Ergodic theory ★A collection of invited papers on ergodic theory. (81b:28001)
 Ergodic theory ★A collection of invited papers on ergodic theory. (81b:28001)

28D05 Measure-preserving transformations

- Aaronson, Jonathan Rational ergodicity, bounded rational ergodicity and some continuous measures on the circle. 81f:28012
 (Adler, Roy M.) See Bowen, Rufus, 81e:28010
 Alpern, Steve (with Edwards, Robert D.) Lusin's theorem for measure-preserving homeomorphisms. 81j:28025
 Bellow, Alexandra (with Furstenberg, H.) An application of number theory to ergodic theory and the construction of uniquely ergodic models. 81f:28013
 Bowen, Rufus Invariant measures for Markov maps of the interval. 81e:28010
 Bradley, Richard C., Jr. On the strong mixing and weak Bernoulli conditions. 81f:28014
 Conze, J.-P. (with Glasner, S.) Almost periodic measures on the torus. 81g:28018
 Čulaevskii, V. A. Cyclic approximations of interval exchanges. (Russian) 81f:28015
 Edwards, Robert D. See Alpern, Steve, 81j:28025
 Ellis, Martin H. Conditions for attaining d by a Markovian joining. 81g:28019
 On Kamae's conjecture concerning the d -distance between two-state Markov processes. 81j:28026
 Erdős, Paul See Mauldin, R. Daniel, 81k:28019
 Feldman, Jacob (with Rudolph, Daniel J.; Moore, Calvin C.) Affine extensions of a Bernoulli shift. 81a:28014
 Furstenberg, H. See Bellow, Alexandra, 81f:28013
 Ganihodjaev, N. N. Factor-decompositions of a discrete partition of a Lebesgue space. (Russian) 81k:28018
 Tame partitions of a Lebesgue space and corresponding von Neumann algebras. (Russian) 81b:28017
 Glasner, S. See Conze, J.-P., 81g:28018
 Goodson, G. R. (with Whitman, P. N.) Approximation and the spectral multiplicity of special automorphisms. 81m:28016
 Helson, Henry Sections in function spaces. (French summary) 81d:28017
 Ito, Shunji A construction of transversal flows for maximal Markov automorphisms. 81e:28012
 del Junco, Andrés (with Rahe, M.; Swanson, Laif) Chacon's automorphism has minimal self-joinings. 81d:28027
 Kamiński, B. Some properties of coalescent automorphisms of a Lebesgue space. 81m:28017
 Katok, A. Bernoulli diffeomorphisms on surfaces. 81a:28015
 Kopf, Christoph On a theorem of V. A. Rohlin. 81d:28018
 Losert, Viktor (with Schmidt, Klaus D.) A class of probability measures on groups arising from some problems in ergodic theory. 81a:28016
 Marcus, Brian A note on periodic points for ergodic total automorphisms. 81f:28016
 Mauldin, R. Daniel (with Erdős, Paul) Rotations of the circle. 81k:28019
 Mislovevich, Michal Invariant measures for continuous transformations of $[0, 1]$ with zero topological entropy. 81a:28017
 Miyamoto, Munemitsu An equilibrium state for a one-dimensional life game. 81j:28028
 Moore, Calvin C. See Feldman, Jacob; et al., 81a:28014
 O'Brien, G. L. Scaling transformations for $(0, 1)$ -valued sequences. 81h:28011
 Ornstein, Donald S. A survey of some recent results in ergodic theory. 81e:28012
 Parry, William Finitary isomorphisms with finite expected code lengths. 81a:28018
 Petit, B. Théorie ergodique: classification de certaines transformations réelles. (English summary) 81a:28019
 Pianigiani, Giulio On the existence of invariant measures. 81d:28019
 Pickel, B. S. The Shannon-McMillan-Breiman theorem for stationary processes that are spatially homogeneous. (Russian) 81k:28020
 Rahe, M. Relatively finitely determined implies relatively very weak Bernoulli. 81j:28029
 Finite coding factors of Markov generators. 81f:28017
 See also del Junco, Andrés; et al., 81j:28027
 Richardson, S. T. (with Wilkinson, K. M.) Stopping time transformations and towers. 81a:28020
 Riley, G. W. On spectral properties of skew products over irrational rotations. 81f:28018
 Rudolph, Daniel J. The second centralizer of a Bernoulli shift is just its power. 81f:28019
 An example of a measure preserving map with minimal self-joinings, and applications. 81e:28011
 See also Feldman, Jacob; et al., 81a:28014
 Rüssmann, Helmut (with Zehnder, E.) On a normal form of symmetric maps of $[0, 1]$. 81g:28020
 Sakai, Kōkichi Remarks on the existence of finite invariant measures for groups of measurable transformations. 81d:28020
 Saleski, Alan A note on the random mean ergodic theorem. 81j:28030
 Schmidt, Klaus D. A probabilistic proof of ergodic decomposition. 81a:28021
 See also Losert, Viktor, 81a:28016
 (Series, Caroline) See Bowen, Rufus, 81e:28010
 Sinai, Ja. G. Ergodic properties of a Lorentz gas. (Russian) 81b:28018
 Swanson, Laif Bernoulli shifts and induced automorphisms. 81a:28022
 See also del Junco, Andrés; et al., 81j:28027
 Vinokurov, V. G. An invariant of a discrete partition of a Lebesgue space. (Russian) 81k:28021
 Whitman, P. N. See Goodson, G. R., 81m:28016
 Wilkinson, K. M. See Richardson, S. T., 81a:28020
 Zehnder, E. See Rüssmann, Helmut, 81g:28020

secondary classifications:

- Auslander, J. (with Katznelson, Y.) Continuous maps of the circle without periodic points. (81e:58048)
 (with Dowker, Y. N.) On disjointness of dynamical systems. (81h:54051)
 Baumgartner, Bernhard Measure-theoretic ergodic theory in quantum mechanics. (81h:81025)
 Benettin, G. (with Casartelli, M.; Galgani, L.; Giorgilli, A.; Strelcyn, J.-M.) On the reliability of numerical studies of stochasticity. II. Identification of time average.

(Italian and Russian summaries) (81i:58031)

- Berman, Simeon M. Stationarity, isotropy and sphericity in L_2 . (81m:60055)
 Cabane, R. Sur les transformations linéaires modulo un. (English summary) (81d:10041)
 Casarrelli, M. See Benettin, G.; et al., (81i:58031)
 Comard, Michel Étude du chaos dans l'itération d'une transformation ponctuelle du premier ordre. Application à des modèles de biologie. (English summary) (81e:58034)
 Denker, Manfred On unitary operators inducing measure-preserving transformations. (81f:47010)
 (with Keane, Michael) Finitary codes and the law of the iterated logarithm. (81m:60056)
 Dowker, Y. N. See Auslander, J., (81h:54051)
 Flytzanis, Elias Invariant measures for linear operators. (81d:47004)
 Friedman, Nathaniel A. Eventually independent sequences. (81e:28014)
 Galsgani, L. See Benettin, G.; et al., (81i:58031)
 Giorgilli, A. See Benettin, G.; et al., (81i:58031)
 Gundel, Horst Some contributions to the \bar{p} -distance for stationary processes. (81f:60051)
 del Junco, Andrés (with Rosenblatt, Joseph) Counterexamples in ergodic theory and number theory. (81d:10042)
 Katznelson, Y. See Auslander, J., (81e:58048)
 Keane, Michael See Denker, Manfred, (81m:60056)
 Lambert, Alan Ergodic properties of a class of noncontractive operators. (81k:47009)
 Statistical independence and invariant subspaces for point transformation. (81e:47010)
 Millet, Annie (with Sucheston, Louis) On the existence of σ -finite invariant measures for operators. (81j:60073)
 Moulin Ollagnier, Jean (with Pinchon, Didier) Dynamical systems of total orders. (81e:43001)
 Olsen, James H. Akcoglu's ergodic theorem for uniform sequences. (81k:47010)
 Parry, William The Lorenz attractor and a related population model. (81f:58027)
 Petersen, Karl A construction of ergodic BMO functions. (81k:42020)
 Pinchon, Didier See Moulin Ollagnier, Jean, (81e:43001)
 Power, S. C. Simplicity of C^* -algebras of minimal dynamical systems. (81e:46057)
 Rieger, Georg J. Mischung und Ergodizität bei Kettenbrüchen nach nächsten Ganzen. (81e:10066)
 Rosenblatt, Joseph See del Junco, Andrés, (81d:10042)
 Streky, J.-M. See Benettin, G.; et al., (81i:58031)
 Sucheston, Louis See Millet, Annie, (81j:60073)
 Wang, S. P. On density properties of certain subgroups with boundedness conditions. (81j:22014)
 Wang, Sherman A central limit theorem for piecewise monotonic mappings of the unit interval. (81h:60025)

28D10 One-parameter continuous families of measure-preserving transformations

- Blum, Julius R. (with Eisenberg, Bennett) Ergodic theorems for mixing transformation groups. 81f:28020
 Eisenberg, Bennett See Blum, Julius R., 81f:28020
 McGrath, S. A. Local ergodic theorems for noncommuting semigroups. 81k:28022
 Nghiem Dáng Ngọc On the integrability of the maximal ergodic function. 81f:28021
 Rosenblatt, Joseph Strongly equivalent invariant measures. 81e:28013
 secondary classifications:
 Aizenman, Michael On extensions of flows in the presence of sets of singularities. (81a:58043)
 Fathi, Albert Structure of the group of homeomorphisms preserving a good measure on a compact manifold. (81k:58042)
 Guckenheimer, John The bifurcation of quadratic functions. (81k:58046)
 Jonker, Leo Periodic orbits and kneading invariants. (81g:58029)
 Lasota, Andrzej Invariant measures and a linear model of turbulence. (81d:54032)
 Mori, Toshio A duality theorem for flows. (81h:60047)
 Ohno, Taijiro A weak equivalence and topological entropy. (81g:54053)
 Sawada, Ken On the iterations of diffeomorphisms without C^0 - Ω -explosions: an example. (81h:58055)

28D15 General groups of measure-preserving transformations

- Benigly, S. I. (with Golodec, V. Ja.) Topological properties of complete groups of automorphisms of a measure space. (Russian) 81e:28013
 Fedorov, A. I. Pairs of measurable partitions and actions of measurable groups of quasitopomorphisms. (Russian) 81k:28023
 Feldman, Jacob (with Hahn, Peter; Moore, Calvin C.) Sections for group actions, and some applications. (French summary) 81h:28013
 (with Nadler, D.) Reparametrization of n -flows of zero entropy. 81h:28012
 Golodec, V. Ja. See Benigly, S. I., 81e:28013
 Hahn, Peter See Feldman, Jacob; et al., 81h:28013
 del Junco, Andrés Finitary coding of Markov random fields. 81f:28022
 Correction to: "Finitary coding of Markov random fields" [Z. Wahrsch. Verw. Gebiete 52 (1980), no. 2, 193–202; MR 81f:28022] 81k:28024
 Moore, Calvin C. See Feldman, Jacob; et al., 81h:28013
 Nadler, D. See Feldman, Jacob, 81h:28012
 Ornstein, Donald S. (with Smorodinsky, Meir) Continuous speed changes for flows. 81e:28021
 Riley, G. W. Approximations and the spectral properties of measure-preserving group actions. 81h:28014
 Smorodinsky, Meir See Ornstein, Donald S., 81e:28021
 secondary classifications:

- Blum, Julius R. (with Eisenberg, Bennett) Ergodic theorems for mixing transformation groups. (81f:28020)

- Eisenberg, Bennett See Blum, Julius R., (81f:28020)
 Ermaie, Jean-Louis Courants ergodiques et répartition géométrique. (81m:10095)
 Freedman, David A. A mixture of independent identically distributed random variables need not admit a regular conditional probability given the exchangeable σ -field. (81g:60058)
 Gundel, Horst Weakly and strongly mixing locally compact abelian groups of measure preserving transformations with application to abelian groups of Gaussian automorphisms. (81a:60050)
 Hahn, Peter The σ -representations of amenable groupoids. (81h:46079)
 Iwanik, Anselm Weak convergence and weighted averages for groups of operators. (81e:22007)
 Kai, Tohru See Tomita, Kazuhisa, (81k:58049)
 Olsen, James H. The individual ergodic theorem for contractions with fixed points. (81g:47006)
 Rosenblatt, Joseph Strongly equivalent invariant measures. (81e:28013)
 Sakai, Kôkichi Remarks on the existence of finite invariant measures for groups of measurable transformations. (81d:28020)
 Tomita, Kazuhisa (with Kai, Tohru) Stroboscopic phase portrait and strange attractors. (81k:58049)
 Yoshimoto, T. Vector valued ergodic theorems for operators satisfying norm conditions. (81e:47016)
 Zimmer, Robert J. Induced and amenable ergodic actions of Lie groups. (81h:22013)
 Amenable pairs of groups and ergodic actions and the associated von Neumann algebras. (81e:22008)

28D20 Entropy and other invariants

- Dekking, F. M. Some examples of sequence entropy as an isomorphism invariant. 81h:28019
 Flaminio, Livio An example of a finitely determined shift that is not finitarily isomorphic to Bernoulli schemes. 81g:28021
 Franke, Martin Die Support-Invariante in einigen Klassen ergodischer dynamischer Systeme. 81g:28022
 Friedman, Nathaniel A. Eventually independent sequences. 81e:28014
 Hofbauer, Franz Maximal measures for piecewise monotonically increasing transformations on $[0,1]$. 81a:28023
 Maximal measures for simple piecewise monotonic transformations. 81f:28023
 Hulse, Paul On the sequence entropy of transformations with quasisubdiscrete spectrum. 81a:28024
 Kamiński, B. On abelian groups of transformations with completely positive entropy. 81h:28015
 Katok, A. Lyapunov exponents, entropy and periodic orbits for diffeomorphisms. 81h:28022
 Keane, Michael (with Smorodinsky, Meir) Finitary isomorphisms of irreducible Markov shifts. 81k:28025
 Kieffer, John C. On coding a stationary process to achieve a given marginal distribution. 81d:28021
 Krieger, Wolfgang On dimension functions and topological Markov chains. 81m:28018
 Marcus, Brian Factors and extensions of full shifts. 81g:28023
 Markley, Nelson G. (with Paul, Michael E.) Almost automorphic symbolic minimal sets without unique ergodicity. 81f:28024
 Michel, Horst Support as an invariant for dynamical systems. (Russian summary) 81h:28016
 Paul, Michael E. See Markley, Nelson G., 81f:28024
 Schwarz, Gideon Finitely determined processes—an indiscrete approach. 81m:28019
 Smorodinsky, Meir See Keane, Michael, 81k:28025
 Šujan, Štefan On the integral representation of the entropy rate. 81m:28020
 Generators of an abelian group of invertible measure-preserving transformations. 81m:28021
 Tagh-Zade, A. T. The entropy of the motions of amenable groups. (Russian. Azerbaijani and English summaries) 81e:28015
 Wang, Chung Lie An extension of the Bernoulli inequality and its application. 81e:28016

secondary classifications:

- Block, Louis Homoclinic points of mappings of the interval. (81m:58063)
 Chawla, J. S. An invariant for continuous mappings. (81m:54073)
 Cuntz, Joachim (with Krieger, Wolfgang) Topological Markov chains with dicyclic dimension groups. (81m:54074)
 Fischer, Roland The capacity and equivocation of a transducer and a connection with Billingsley dimension. (81m:94008)
 Fried, David (with Shub, Michael) Entropy, linearity and chain-recurrence. (81a:58033)
 Guckenheimer, John The growth of topological entropy for one-dimensional maps. (81m:58046)
 Gumowski, Igor (with Mira, Christian) ★Recurrence and discrete dynamic systems. (81m:58052)
 Hofbauer, Franz (with Strasser, R.) β -Shifts haben ein eindeutiges Maß mit maximaler Entropie. (81e:10065)
 Ito, Shunji A construction of transversal flows for maximal Markov automorphisms. (81e:28012)
 (with Tanaka, Shigeru; Nakada, Hitoshi) On unimodal linear transformations and chaos. I, II. (81d:58040)
 Jonker, Leo (with Rand, David) The periodic orbits and entropy of certain maps of the unit interval. (81m:58047)
 Kamiński, B. Some properties of coalescent automorphisms of a Lebesgue space. (81m:28017)
 Krieger, Wolfgang See Cuntz, Joachim, (81m:54074)
 Maller, Michael Fitted diffeomorphisms of nonsimply connected manifolds. (81m:58042)

- Manning, Anthony Topological entropy. (Portuguese) (81c:58047)
Upper semicontinuity of topological entropy. (81b:58029)
Topological entropy for geodesic flows. (81c:58044)
Matsumoto, Shigenori Topological entropy of circle endomorphisms. (81b:58027)
Mendes France, Michel A propos de la suite de Morse. (81f:12001)
Mira, Christian See Gumowski, Igor, (81m:58052)
Misiurewicz, Michał Horseshoes for mappings of the interval. (Russian summary) (81b:58033)
Nakada, Hitoshi See Ito, Shunji; et al., (81d:58040)
Nguyen Tang See Terlecki, Ja. P., (81m:82023)
Rand, David See Jouker, Leo, (81m:58047)
Radolph, Daniel J. The second centralizer of a Bernoulli shift is just its powers. (81f:28019)
Shimada, Ipppei Gibbsian distribution on the Lorenz attractor. (81c:58037)
Shub, Michael See Fried, David, (81a:58033)
Strasser, R. See Hofbauer, Franz, (81c:10065)
Tanaka, Shigeru See Ito, Shunji; et al., (81d:58040)
Terlecki, Ja. P. (with Nguyen Tang) On the statistical determination of nonequilibrium entropy. (Russian) (81m:82023)

28D99 None of the above, but in this section

- Bezuglyi, S. I. (with Golodec, V. Ja.) Some properties of complete groups of automorphisms of Lebesgue spaces. (Russian) 81d:28023
(with Golodec, V. Ja.) Topological properties of complete groups of automorphisms of a space with a measure. (Russian) 81d:28022
Dvurečenskij, Anatolij (with Riečan, Beloslav) On the individual ergodic theorem on a logic. 81g:28024
Ganikhodjaev, N. N. A criterion for ergodic discrete tame partitions. (Russian) 81j:28031
Golodec, V. Ja. See Bezuglyi, S. I., 81d:28022 and Bezuglyi, S. I., 81d:28023
Katznelson, Y. The action of diffeomorphism of the circle on the Lebesgue measure. 81f:28023
Neveu, J. The filling scheme and the Chacon-Ornstein theorem. 81c:28017
Riečan, Beloslav See Dvurečenskij, Anatolij, 81g:28024

secondary classifications:

- Ahlfors, Lars V. Ergodic properties of groups of Möbius transformations. (81i:30079)
Akçoglu, Mustafa A. (with Krengel, Ulrich) Ergodic theorems for superadditive processes. (81i:60056)
Benoist, A. (with Lions, Jacques-Louis; Papanicolaou, George C.) Homogenization and ergodic theory. (81b:60101)
Blum, Julius R. (with Reich, J. I.) p -sets for random walks. (81j:60079)
Campanino, Massimo Two remarks on the computer study of differentiable dynamical systems. (81g:58022)
Černov, N. I. Kneading invariants for mappings of an interval with absolutely continuous invariant measure. (Russian) (81d:58039)
Dynkin, E. B. Minimal excessive measures and functions. (81a:60086)
Foguel, Shaul R. (with Ghousoub, Nassif A.) Ornstein-Métivier-Brunel theorem revisited. (French summary) (81d:60065)
Ghousoub, Nassif A. See Foguel, Shaul R., (81d:60065)
Gray, Robert M. (with Kieffer, John C.) Asymptotically mean stationary measures. (81m:60058)
Hahn, Peter The regular representations of measure groupoids. (81f:46075)
Hamachi, Toshihiro (with Oikawa, Motoisige) Fundamental homomorphism of normalizer group of ergodic transformation. (81b:46076)
Hardy, J. (with Weber, J.) Diffusion in a periodic wind-tree model. (81c:82071)
Helson, Henry Compact groups with ordered duals. VII. (81m:43013)
Herman, Michael-Robert Sur la conjugaison différentiable des difféomorphismes du cercle à des rotations. (81b:58039)
Kieffer, John C. See Gray, Robert M., (81m:60058)
Krengel, Ulrich See Akçoglu, Mustafa A., (81i:60056)
Lions, Jacques-Louis See Benoist, A.; et al., (81b:60101)
Oikawa, Motoisige See Hamachi, Toshihiro, (81b:46076)
Papanicolaou, George C. See Benoist, A.; et al., (81b:60101)
Raghunathan, M. S. A proof of Oseledec's multiplicative ergodic theorem. (81f:60016)
Ratner, Marina The Cartesian square of the horocycle flow is not loosely Bernoulli. (81g:58032)
Rees, M. Nonconjugacy of a minimal distal diffeomorphism of the torus to a C^1 skew-product. (81c:58035)
Reich, J. I. See Blum, Julius R., (81j:60079)
Ruelle, David Dynamical systems with turbulent behavior. (81c:58032)
Schreiber, Bertram M. p -adic linear groups with ergodic affine transformations. (81b:22011)
Sibirskii, K. S. Dynamical systems. (Russian) (81m:58029)
Szlenk, W. On weakly conditionally compact dynamical systems. (81a:54043)
Vaserstein, L. N. On systems of particles with finite-range and/or repulsive interactions. (81b:58028)
Veech, William A. Ergodic theory and uniform distribution. (81g:10067)
Weber, J. See Hardy, J., (81c:82071)
Yoccoz, Jean-Christophe Centralisateur d'un difféomorphisme du cercle dont le nombre de rotation est irrationnel. (English summary) (81m:58049)
Zimmer, Robert J. On the cohomology of ergodic group actions. (81m:22011)

30-XX FUNCTIONS OF A COMPLEX VARIABLE (For analysis on manifolds, see 58-XX.)

30-01 Elementary exposition, textbooks

- Fischer, Wolfgang (with Lieb, Ingo) ★Funktionentheorie. (German) [Theory of functions] 81c:30001

- González-Velasco, Enrique A. The homotopic proof of Cauchy's integral theorem. 81g:30001

- Holland, Anthony S. B. ★Complex function theory. 81c:30001
Lieb, Ingo See Fischer, Wolfgang, 81c:30001
Mitrinović, Dragoslav S. ★Kompleksna analiza. (Serbo-Croatian) [Complex analysis] 81b:30001
Moed, David On the definition of the first homology group in the open sets of the plane. (Spanish) 81j:30001

secondary classifications:

- Feyel, Denis (with de la Pradelle, Arnaud) ★Exercices sur les fonctions analytiques. (French) [Exercises on analytic functions] (81m:30001)
de la Pradelle, Arnaud See Feyel, Denis, (81m:30001)
Reimers, Bernd Konstruktion endlicher Funktionen mit gebrochenen linearen Funktionen. (81c:20035)
Tverberg, Helge A proof of the Jordan curve theorem. (81c:30045)

30-02 Advanced exposition (research surveys, monographs, etc.)

- Ahlfors, Lars V. Quasiconformal mappings, Teichmüller spaces, and Kleinian groups. 81c:30002
Burckel, Robert B. ★An introduction to classical complex analysis. Vol. I. 81d:30001
Dzjadik, V. K. The constructive theory of functions on closed sets of the complex plane. (Russian) 81b:30001
Feyel, Denis (with de la Pradelle, Arnaud) ★Exercices sur les fonctions analytiques. (French) [Exercises on analytic functions] 81m:30001
Leon'tev, A. F. ★Последовательности полиномов из экспонент. (Russian) [Sequences of polynomials of exponentials] 81m:30002
de la Pradelle, Arnaud See Feyel, Denis, 81m:30001

secondary classifications:

- Tomassini, Giuseppe Geometry and complex analysis. (Italian) (81j:32001)

30-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- (Hadamard, J.) See Picard, Charles-Émile, (81j:01049a)
(Hervé, Michel) See Picard, Charles-Émile, (81j:01049a)
(Leray, Jean) See Picard, Charles-Émile, (81j:01049a)
Markushevich, A. I. Some questions of the history of the theory of analytic functions in the 19th century. (Russian) (81m:01037)
Picard, Charles-Émile ★Œuvres de Ch.-É. Picard. Tome I. (French) [Works of Ch.-É. Picard. Vol. I] (81j:01049a)
★Œuvres de Ch.-É. Picard. Tome II. (French) [Works of Ch.-É. Picard. Vol. II] (81j:01049b)
(Serre, Jean-Pierre) See Picard, Charles-Émile, (81j:01049a)
Bibliography:
Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)
Biography:
Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)

30-04 Explicit machine computation and programs (not the theory of computation or programming)

30-06 Proceedings, conferences, etc.

- (Hvedelidze, B. V.) See Boundary properties of analytic functions, singular integral equations and some questions of harmonic analysis. 81g:30002
(Nikol'skii, N. K.) See Investigations on linear operators and the theory of functions. 81a:30001
(Savrov, G. D.) See Theory of functions and mappings. 81b:30002 and Metric questions of the theory of functions. 81j:30002
Analytic functions ★Граничные свойства аналитических функций, сингулярные интегральные уравнения и некоторые вопросы гармонического анализа. (Russian) [Boundary properties of analytic functions, singular integral equations and some questions of harmonic analysis] 81g:30002
Boundary properties of analytic functions, singular integral equations and some questions of harmonic analysis ★Граничные свойства аналитических функций, сингулярные интегральные уравнения и некоторые вопросы гармонического анализа. (Russian) [Boundary properties of analytic functions, singular integral equations and some questions of harmonic analysis] 81g:30002
Function theory ★Исследования по линейным операторам и теории функций. IX. (Russian) [Investigations on linear operators and the theory of functions. IX] 81a:30001
★Метрические вопросы теории функций. (Russian) [Metric questions of the theory of functions] 81j:30002
Harmonic analysis ★Граничные свойства аналитических функций, сингулярные интегральные уравнения и некоторые вопросы гармонического анализа. (Russian) [Boundary properties of analytic functions, singular integral equations and some questions of harmonic analysis] 81g:30002
Integral equations ★Граничные свойства аналитических функций, сингулярные интегральные уравнения и некоторые вопросы гармонического анализа. (Russian) [Boundary properties of analytic functions, singular integral equations and some questions of harmonic analysis] 81g:30002
Investigations on linear operators and the theory of functions ★Исследования по линейным операторам и теории функций. IX. (Russian) [Investigations on linear

operators and the theory of functions. IX] 81a:30001

Linear analysis on complex domains ★Linear analysis on complex domains. (Japanese) 81m:30003

Linear operators ★Исследования по линейным операторам и теории функций. IX. (Russian) [Investigations on linear operators and the theory of functions. IX] 81a:30001

Mappings ★Теория функций и отображений. (Russian) [Theory of functions and mappings] 81b:30002

Metric questions of the theory of functions ★Метрические вопросы теории функций. (Russian) [Metric questions of the theory of functions] 81j:30002

Symposium:

Linear Analysis on Complex Domains ★Linear analysis on complex domains. (Japanese) 81m:30003

Theory of functions and mappings ★Теория функций и отображений. (Russian) [Theory of functions and mappings] 81b:30002

secondary classifications:

(Barrin, I. L.) See **Mathematical analysis and the theory of functions**. (81c:32001)

(Fomenko, O. M.) See **Analytic number theory and the theory of functions**. (81m:10003) (Kordzadze, R. A.) See **Differential and integral equations. Boundary value problems**. (81j:73002)

(Kur'mina, G. V.) See **Analytic number theory and the theory of functions**. (81m:10003) (Lawrynowicz, Julian) See **Analytic functions**. (81d:32001)

(Vekua, I. N.) See **Differential and integral equations. Boundary value problems**. (81j:73002)

Analytic functions ★Analytic functions, Kozubnik 1979. (81d:32001)

Analytic number theory and the theory of functions ★Аналитическая теория чисел и теория функций. 3. (Russian) [Analytic number theory and the theory of functions. 3] (81m:10003)

Boundary value problems ★Дифференциальные и интегральные уравнения. Краевые задачи. (Russian) [Differential and integral equations. Boundary value problems] (81j:73002)

Conference:

Analytic Functions ★Analytic functions, Kozubnik 1979. (81d:32001)

Differential and integral equations. Boundary value problems ★Дифференциальные и интегральные уравнения. Краевые задачи. (Russian) [Differential and integral equations. Boundary value problems] (81j:73002)

Function theory ★Аналитическая теория чисел и теория функций. 3. (Russian) [Analytic number theory and the theory of functions. 3] (81m:10003)

Komnalk ★Analytic functions, Kozubnik 1979. (81d:32001)

Mathematical analysis and the theory of functions ★Математический анализ и теория функций. Вып. 8. (Russian) [Mathematical analysis and the theory of functions. No. 8] (81c:32001)

Number theory ★Аналитическая теория чисел и теория функций. 3. (Russian)

[Analytic number theory and the theory of functions. 3] (81m:10003)

Theory of functions ★Математический анализ и теория функций. Вып. 8. (Russian) [Mathematical analysis and the theory of functions. No. 8] (81c:32001)

30Axx General properties

30A05 Monogenic properties of complex functions (including polygenic and areolar monogenic functions)

Bondar, A. V. An irremovable singularity of an analytic function. (Russian) 81g:30003

Dinh, F. M. Conditions for the existence of a total differential of an arbitrary continuous function. (Russian) 81c:30002

Tur, M. M. Conditions for monogenicity of complex functions. (Russian) 81i:30001

30A10 Inequalities in the complex domain

Rajpal, Shyam K. An analogue of R. J. Libera's result. (Italian summary) 81c:30003

Durand, Alain A propos d'un théorème de S. Bernstein sur la dérivée d'un polynôme. (English summary) 81i:30002

Essén, Mats (with Shea, Daniel F.) On some questions of uniqueness in the theory of symmetrization. 81d:30002

Geras, O. F. Inverse estimates of moduli of smoothness for singular integrals. (Russian) 81i:30003

Owa, Shigeo On applications of the fractional calculus. 81i:30004

Rahman, Q. I. (with Schneisser, Gerhard) An extremal problem for polynomials with a prescribed zero. II. 81j:30003

Schneisser, Gerhard See Rahman, Q. I. 81j:30003

Shea, Daniel F. See Essén, Mats, 81d:30002

secondary classifications:

Jaremenko, L. A. See Mitjuk, I. P. (81b:30017)

Körner, T. W. On a polynomial of Byrnes. (81i:30009)

Mitjuk, I. P. (with Jaremenko, L. A.) The displacement of a regular image of a multiply connected domain. (Russian. English summary) (81b:30017)

30A99 None of the above, but in this section

Bear, H. S. (with Hile, Gerald N.) Gradient characterizations of analyticity. 81j:30004

Hile, Gerald N. See Bear, H. S. 81j:30004

Johnson, Elgin H. Growth of derivatives and the modulus of continuity of analytic functions. 81c:30004

secondary classifications:

Dostal, Milos (with Tindell, Ralph) The Jordan curve theorem revisited. (81d:55007)

Tindell, Ralph See Dostal, Milos, (81d:55007)

30Bxx Series expansions

30B10 Power series (including lacunary series)

Aborn, Bruce J. (with Shankar, Hari) Generalized growth for functions analytic in a finite disc. 81j:30005

Bogda, Richard A. (with Shankar, Hari) Counterexamples for lower order of an analytic function. 81c:30005

Gopal, K. See Kapoor, G. P. 81b:30002

Kapoor, G. P. (with Gopal, K.) Decomposition theorems for analytic functions having slow rates of growth in a finite disc. 81b:30002

Kaufman, Robert P. Zero sets of absolutely convergent Taylor series. 81b:30003

Lappan, Peter Functions which are large at most points near the boundary. 81i:30005

Mahler, K. On a special function. 81c:30006

Matveeva, L. V. Estimate of the rate of convergence of a sequence of Gronwall polynomials. (Russian) 81b:30003

Mural, Takafumi Une conjecture de Paley sur les séries de Taylor lacunaires. (English summary) 81j:30006

Sur la distribution des valeurs des séries lacunaires. 81g:30004

Naftalevich, A. On power series and their partial sums. 81g:30005

Shankar, Hari See Bogda, Richard A. 81c:30005 and Aborn, Bruce J., 81j:30005

Suleimanov, N. M. Wiman-Valiron-type estimates for power series with a finite radius of convergence and their exactness. (Russian) 81j:30007

secondary classifications:

Babenko, I. K. Real homotopy properties of complete intersections. (Russian) (81b:55031)

Bondarenko, B. A. Some classes of entire transcendental functions and their applications to differential equations. (Russian) (81i:30046)

Campbell, Douglas M. See Soss, L. R., (81d:30050).

van Daele, J. See Vandewalle, Joos, (81d:15002)

Gessel, Ira M. A factorization for formal Laurent series and lattice path enumeration. (81j:05012)

Hofbauer, Josef A short proof of the Lagrange-Good formula. (81c:05019)

Jacob, Mathias (with Offord, Cyril) Les fonctions aléatoires dans le disque unité. (English summary) (81i:42028)

Offord, Cyril See Jacob, Mathias, (81i:42028)

Soss, L. R. (with Campbell, Douglas M.) Hadamard gap series and normal functions. (81d:30050)

Vandewalle, Joos (with van Daele, J.) On the computation of the inverse of a rational matrix expansion. (81d:15002)

30B20 Random power series

secondary classifications:

Borell, Christer On the integrability of Banach space valued Walsh polynomials. (81g:42026)

30B30 Boundary behavior of power series, over-convergence

Atzmon, Aharon Boundary values of absolutely convergent Taylor series. 81j:30008

Jakimovski, A. (with Meyer-König, W.) Uniform convergence of power series expansions on the boundary. 81f:30001

Meyer-König, W. See Jakimovski, A., 81f:30001

secondary classifications:

Mahler, K. On a special function. (81c:30006)

Mural, Takafumi Une conjecture de Paley sur les séries de Taylor lacunaires. (English summary) (81j:30006)

Naftalevich, A. On power series and their partial sums. (81g:30005)

Oberlin, Daniel M. A Rudin-Carleson theorem for uniformly convergent Taylor series. (81j:46002)

Rusev, Pet'r K. Convergence and (C, 1)-summability of Laguerre series on the boundaries of their regions of convergence. (Bulgarian. English summary) (81c:40002)

Suleimanov, N. M. Wiman-Valiron-type estimates for power series with a finite radius of convergence and their exactness. (Russian) (81j:30007)

Tanaka, Choji On the boundary behavior of Taylor series of regular functions of some classes in the unit circle. (81j:40015)

30B40 Analytic continuation

Atkinson, D. Analytic extrapolations and inverse problems. 81d:30003

Haimo, F. (with Singer, M. F.; Tretkoff, Marvin D.) Remarks on analytic continuation. 81j:30009

Singer, M. F. See Haimo, F.; et al., 81j:30009

Tretkoff, Marvin D. See Haimo, F.; et al., 81j:30009

secondary classifications:

Donoghue, William F., Jr. Reproducing kernel spaces and analytic continuation. (81j:32027)

Matveeva, L. V. Dependence of the convergence rate of Gronwall polynomials on properties of the mapping function. (Russian) (81k:40013)

30B50 Dirichlet series and other series expansions, exponential series [See also 40-XX, 41-XX, 42-XX.]

Alfaro García, Manuel Expansion in Fourier-Toeplitz series in $1/z^k$. (Spanish. English

- summary) 81b:30004
- Bajpai, Shyam K. On entire functions of bounded index defined by Dirichlet expansions. 81c:30007
- Beljaev, V. A. Grouped power series. (Russian) 81c:30003
- Blambert, Maurice (with Parvatham, Rajagopalan) Ultraconvergence et singularités pour une classe de séries d'exponentielles. (English summary) 81c:30008
- Cannizzo, Aurelio (with Valenti, Santi) A criterion of convergence related to complex special functions. (Italian summary) 81b:30005
- Cegelik, G. G. See Kostov'skii, O. M., 81b:30006
- Gal', Ju. M. (with Šeremeta, M. M.) The growth of functions analytic in the half plane which are prescribed by Dirichlet series. (Russian. English summary) 81d:30004
- Glaeske, Hans-Jürgen (with Sebastian, Hans-Jürgen) Verallgemeinerungen Dirichletscher und Lambertscher Reihen. 81a:30002
- Hille, Einar Contributions to the theory of Hermitian series. III. Meanvalues. 81b:30003
- Korobčinskii, Ju. F. Representing systems of exponentials and nontrivial decompositions. (Russian) 81b:30004
- Kostov'skii, O. M. (with Cegelik, G. G.) Determination of a bound for the zeros of Dirichlet series with complex exponents. (Ukrainian. Russian summary) 81b:30006
- Krugolova, E. K. On the question of the representation of analytic functions by Dirichlet series in closed convex domains. (Russian) 81d:30005
- Kuprin, V. A. Faber series and the problem of linear conjugation. (Russian) 81c:30009
- Meřnik, Ju. I. Conditions for the convergence of Dirichlet series which represent regular functions. (Russian) 81b:30005
- On a universal system of exponents. (Russian) 81b:30007
- Constructive construction of Dirichlet series of regular functions. (Russian) 81c:30006
- Menzer, Hartmut Transformation spezieller Dirichletscher Reihen. III. (Russian and English summaries) 81b:30001
- Mustafin, R. F. Theorems of the type of Liouville's theorem. (Russian) 81b:30006
- Orudiev, G. A. Order and type of entire functions. (Russian. Azerbaijani and English summaries) 81d:30006
- Parvatham, Rajagopalan See Blambert, Maurice, 81c:30008
- Pasečnik, G. M. Geometric characterization of a set of exponents of a representing system of exponentials for the space $H(G)$. (Russian) 81j:30010
- Rubel, Lee A. (with Stolarsky, Kenneth B.) Subseries of the power series for e^z . 81g:30006
- Rusev, Pet'r K. Some results about the representation of analytic functions by Laguerre series. (Russian) 81b:30008
- The multiplication of series in Laguerre functions of the second kind. (Russian) 81d:30007
- Representation of analytic functions by series in Laguerre polynomials. (Russian) 81a:30003
- The representation of analytic functions by means of series in Laguerre functions of the second kind. 81f:30002
- Sebastian, Hans-Jürgen See Glaeske, Hans-Jürgen, 81a:30002
- Sedleckii, A. M. Dirichlet series on a system of segments starting from the origin. (Russian) 81b:30007
- Šeremeta, M. M. Asymptotic properties of entire functions, given by Dirichlet series, and their derivatives. (Russian) 81c:30004
- See also Gal', Ju. M., 81d:30004
- Smith, H. V. On the location of the singularities of the function defined by a Dirichlet series. 81c:30005
- Srivastava, Gijra S. See Valsh, Satendra Kumar, 81b:30009
- Stolarsky, Kenneth B. See Rubel, Lee A., 81g:30006
- Subrahmanyam, K. H. S. A fundamental growth relation between the supremum modulus and the maximum term of an entire Dirichlet series. 81b:30008
- Valsh, Satendra Kumar (with Srivastava, Gijra S.) A note on the logarithmic proximate orders. (French summary) 81b:30009
- Generalized logarithmic means of an entire Dirichlet series. I. 81j:30011
- Valenti, Santi See Cannizzo, Aurelio, 81b:30005
- Vinnik'ii, B. V. Representation of analytic functions by the series $\sum_{n=1}^{\infty} d_n f(\lambda_n z)$. (Russian) 81c:30010
- Wadleigh, Frank Taylor-Dirichlet series and algebraic differential-difference equations. 81j:30007
- Yu, Jia Rong Some properties of random Dirichlet series. (Chinese. English summary) 81b:30002
- secondary classifications:
- Agrawal, B. M. (with Kumar, Virendra) A q -expansion formula. (81b:33021)
- Balasubramanian, R. (with Ramachandra, K.) On the zeros of a class of generalized Dirichlet series. IV. (81c:10046)
- Filimonova, L. A. Determination of the boundary of the domain of absolute convergence of multiple Dirichlet series. (Russian) (81b:32002)
- Hille, Einar On a class of interpolation series. (81g:30048)
- Iseki, Shō (with Iseki, Yukiko) Asymptotic expansion for the remainder of a factorial series. (81k:41024)
- Iseki, Yukiko See Iseki, Shō, (81k:41024)
- Juneja, Om Prakash (with Nandan, Krishna; Kapoor, G. P.) On the (p, q) -order and lower (p, q) -order of an entire Dirichlet series. (81k:30031)
- Kapoor, G. P. See Juneja, Om Prakash; et al., (81k:30031)
- Kumar, Virendra See Agrawal, B. M., (81b:33021)
- Leon't'ev, A. F. ★ Последовательности полиномов из экспонент. (Russian) [Sequences of polynomials of exponentials] (81m:30002)
- Leon't'eva, L. A. (with Leon't'eva, T. A.) Partitioning of a class of functions, represented by sequences of Dirichlet polynomials, into subclasses. (81g:30036)
- Leon't'eva, T. A. See Leon't'eva, L. A., (81g:30036)
- Nandan, Krishna See Juneja, Om Prakash; et al., (81k:30031)
- Orudiev, G. A. Growth of entire functions. (Russian. Azerbaijani and English summaries) (81f:30027)
- Proskurin, N. V. Convolutions of Dirichlet series with Fourier coefficients of cusp form of weight 0. (Russian) (81m:10059)
- Ramachandra, K. On the zeros of generalised Dirichlet series. V. (81c:10047)
- See also Balasubramanian, R., (81c:10046)
- Redmond, Don Omega theorems for a class of Dirichlet series. (81c:10054)
- Schwarz, Wolfgang See Spilker, Jürgen, (81d:32002)
- Šeremeta, M. M. Properties of entire functions prescribed by Dirichlet series, and their derivatives. (Russian. English summary) (81c:30050)
- Spilker, Jürgen (with Schwarz, Wolfgang) Wiener-Lévy-Sätze für absolut konvergente Reihen. (81d:32002)
- Valsh, Satendra Kumar Maximum term and the rank of an entire Dirichlet series. (81a:30018)
- Vinnik'ii, B. V. The growth of entire functions that are given by the series $\sum_{n=1}^{\infty} d_n f(\lambda_n z)$. (Russian) (81b:30047)
- 30B60 Completeness problems, closure of a system of functions
- Avetisjan, A. E. Completion of a nonclosed system of functions of Mittag-Leffler type. (Russian. Armenian and English summaries) 81b:30004
- Dzrbajjan, M. M. The basis property of some biorthogonal systems, and the solution of a multiple interpolation problem in H^p classes in a half plane. (Russian) 81d:30008
- Gorgulja, V. I. See Ibragimov, I. I.; et al., 81c:30011
- Grigorjan, Š. A. The basis property of incomplete systems of rational functions in an angular domain. (Russian. Armenian and English summaries) 81c:30006
- Haslinger, Friedrich Abel-Gončarov polynomial expansions in spaces of holomorphic functions. 81g:30007
- Ibragimov, I. I. (with Gorgulja, V. I.; Nagnibida, M. I.) The simultaneous availability of the property of multiple completeness of some different systems of functions. (Russian. Azerbaijani and English summaries) 81c:30011
- Leon't'eva, L. A. (with Leon't'eva, T. A.) Completeness of a system of functions on an arc. (Russian. English summary) 81c:30012
- Leon't'eva, T. A. See Leon't'eva, L. A., 81c:30012
- Liščuk, S. S. Some systems of analytic functions that form a basis, and their applications. (Russian. English summary) 81b:30009
- Ljubarskii, Ju. I. A system of linear combinations of exponentials. (Russian) 81c:30013
- Martirosjan, V. M. The closure and basis property of some biorthogonal systems and the solution of a multiple interpolation problem in angular domains. (Russian. Armenian and English summaries) 81c:30007
- Nagnibida, M. I. See Ibragimov, I. I.; et al., 81c:30011
- Schröck-Pauli, Claudia Über die Vollständigkeit und Freiheit von verallgemeinerten Fourier-Systemen. 81m:30004
- Sedleckii, A. M. Excesses of systems of exponential functions. (Russian) 81b:30010
- Volberg, A. L. Mean quadratic completeness of polynomials beyond the limit of Szegő's theorem. (Russian) 81b:30008
- secondary classifications:
- Gorjainov, V. V. Convergence of one-parameter families of analytic functions. (Russian) (81c:46018)
- Haslinger, Friedrich Generalized Abel-Gončarov bases in spaces of holomorphic functions. (81d:46010)
- A dual relationship between generalized Abel-Gončarov bases and certain Pincherle bases. (81d:46011)
- Hwang, Jun Shung (with Pan, Ch'iao Sung; Wu, L. S.) An extension of Bernstein-Müntz-Szász theorem. (81e:41007)
- Martirosjan, V. M. Closure and the basis property of certain biorthogonal systems and the solution of a multiple interpolation problem in $H_p(\alpha; \omega)$. (Russian) (81g:30009)
- P'an, Ch'iao Sung See Hwang, Jun Shung; et al., (81e:41007)
- Wu, L. S. See Hwang, Jun Shung; et al., (81e:41007)
- 30B70 Continued fractions [See also 10A32, 40A15.]
- Bodnar, D. I. A necessary criterion for convergence of branching continued fractions with positive components. (Russian) 81f:30003
- de Bruin, M. G. Convergence of generalized C -fractions. 81a:30004
- Dennis, Joseph J. (with Wall, H. S.) The limit-circle case for a positive definite J -fraction. (See 81c:00004)
- Filozof, L. I. A characterization of functions of the Herglotz class. (Russian) 81k:30005
- Gill, John A generalization of certain corresponding continued fractions. 81d:30009
- Kučmas'ka, H. I. Expansion of a double power series into corresponding and associated branching continued fractions. (Russian) 81d:30010
- Siemaszko, Wojciech Branched continued fractions for double power series. 81b:30006
- Thron, W. J. (with Waadeland, Haakon) Accelerating convergence of limit periodic continued fractions $K(a_n/1)$. 81c:30008
- Waadeland, Haakon See Thron, W. J., 81c:30008
- Wall, H. S. See Dennis, Joseph J., (See 81c:00004)
- secondary classifications:
- Hirschhorn, Michael D. A continued fraction of Ramanujan. (81i:10013)
- Jones, William B. (with Thron, W. J.; Waadeland, Haakon) A strong Stieltjes moment problem. (81j:30055)
- Sidi, Avram Some aspects of two-point Padé approximants. (81i:41015)
- Thron, W. J. See Jones, William B.; et al., (81j:30055)
- Waadeland, Haakon See Jones, William B.; et al., (81j:30055)
- 30B99 None of the above, but in this section
- Akbarov, R. The Riemann problem for analytic functions with singularities. (Russian) 81f:30004
- Anderson, Bill D. See Zuber, E. K., 81j:30012
- Zuber, E. K. (with Anderson, Bill D.) Convergence of generalized power series. 81j:30012

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secondary classifications:

Ferrand, Jacqueline Regularity of conformal mappings of Riemannian manifolds. (81d:53032)

30C10 Polynomials

Aziz, Abdul (with Mohammad, Q. G.) Simple proof of a theorem of Erdős and Lax. 81g:30008

Budnev, V. I. An estimate of the derivative of a polynomial and a generalization of S. M. Nikol'skii's inequality. (Russian) 81k:30007

Charzyński, Zygmunt (with Kozłowski, Andrzej) Geometry of polynomials. I. (Polish summary) 81g:30009a

(with Kozłowski, Andrzej) Geometry of polynomials. II. (Polish summary)

81g:30009b (with Kozłowski, Andrzej) Geometry of polynomials. III. (Polish summary)

Giron, André (with Rahman, Q. I.; Schmeisser, Gerhard) On Bernstein's inequality. 81e:30009

Govil, N. K. (with Rahman, Q. I.; Schmeisser, Gerhard) On the derivative of a polynomial. 81e:30010

Jürcke, B. On the rate of the conditionality of a polynomial in one complex variable. (Russian. Armenian and English summaries) 81g:30010

Körner, T. W. On a polynomial of Byrnes. 81i:30009

Kozłowski, Andrzej See Charzyński, Zygmunt, 81g:30009a; Charzyński, Zygmunt, 81g:30009b and Charzyński, Zygmunt, 81g:30009c

Minnaja, I. S. A theorem of expansion of all roots of a polynomial in absolutely convergent series. (Russian) 81m:30005

Mohammad, Q. G. See Aziz, Abdul, 81g:30008

Newman, Donald J. Polynomials with large partial sums. 81i:30010a

Erratum: "Polynomials with large partial sums". 81i:30010b

Rahman, Q. I. See Giron, André; et al., 81e:30009 and Govil, N. K.; et al., 81e:30010

Runkin, A. L. Quasipolynomials. (Russian) 81j:30013

Schmeisser, Gerhard See Giron, André; et al., 81e:30009 and Govil, N. K.; et al., 81e:30010

secondary classifications:

Antonov, V. A. (with Holševnikov, K. V.) Evaluation of Jacobi polynomials in the complex domain. (Russian. English summary) (81b:33016)

Durand, Alain A propos d'un théorème de S. Bernstein sur la dérivée d'un polynôme. (English summary) (81i:30002)

Holševnikov, K. V. See Antonov, V. A., (81b:33016)

Kufkov, I. V. L_p -convergence of Bieberbach polynomials. (Russian) (81a:30007)

Rahman, Q. I. Inequalities of Markoff and Bernstein. (81a:41021)

Rice, R. E. (with Schweizer, Berthold; Sklar, Abe) When is $f(f(z)) = az^2 + bz + c$? (81e:39005)

Rubinstein, Zalman Norm estimates relating polynomials and their derivatives. (81f:41016)

Schweizer, Berthold See Rice, R. E.; et al., (81e:39005)

Simonenko, I. B. Convergence of Bieberbach polynomials in the case of a Lipschitz domain. (Russian) (81m:30011)

Sklar, Abe See Rice, R. E.; et al., (81e:39005)

Wagner, Gerald On a problem of Erdős in Diophantine approximation. (81f:10048)

30C15 Zeros of polynomials, rational functions, and other analytic functions (e.g. zeros of functions with bounded Dirichlet integral) (For algebraic theory, see 12D10; for real methods, see 26C10.)

Alan, Mahfooz Zeros of Stieltjes and Van Vleck polynomials. 81g:30011

Avellar, Cerino E. (with Hale, Jack K.) On the zeros of exponential polynomials. 81d:30011

Aziz, Abdul (with Mohammad, Q. G.) On the zeros of a certain class of polynomials and related analytic functions. 81j:30014

Bickart, T. A. (with Jury, E. I.) Polynomial root clustering. 81k:30008

Boas, R. P., Jr. Zeros of successive derivatives of a function analytic at infinity. 81i:30011

See also Levin, B. Ja., 81k:30011

Boese, G. Verallgemeinerung eines Lemmas von J. L. Walsh nebst einigen Anwendungen. (English and Russian summaries) 81e:30011

Božarov, E. E. A direct treatment of integral polynomials and entire functions. (Bulgarian. Russian and German summaries) 81j:30015

Carlson, Lennart An example concerning analytic functions with finite Dirichlet integrals. (Russian summary) 81j:30016

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Fell, H. J. On the zeros of convex combinations of polynomials. 81m:30006

Gargantini, Irene A generalization of the Schur-Cohn criterion. 81m:30007

Gawronski, Wolfgang On the zeros of power series with rational coefficients. II. 81j:30017

On the zeros of power series with rational coefficients. III. 81b:30011

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Grosswald, Emil Recent applications of some old work of Laguerre. 81e:30013

Hale, Jack K. See Avellar, Cerino E., 81d:30011

Hartman, V. L. The Routh-Hurwitz problem for families of polynomials and quasipolynomials. (Russian) 81i:30012

Jury, E. I. See Bickart, T. A., 81k:30008

Karna, O. Some asymptotic estimates of the nearness of roots of holomorphic functions. (Russian. English summary) 81k:30009

Kikaveit, Ju. L. Estimates of the zeros of polynomials. (Russian) 81k:30010

(Korevan, Jacob) See Levin, B. Ja., 81k:30011

Krasnov, Ja. A. See Ten, V. D., 81e:30015

(Laguerre, Edmond) See Grosswald, Emil, 81e:30013

Levin, B. Ja. ★Distribution of zeros of entire functions. 81k:30011

Mohammad, Q. G. See Aziz, Abdul, 81j:30014

Owens, Robyn Sur les zéros des fonctions analytiques presque périodiques. (English summary) 81h:30010

Prather, Carl L. See Shaw, J. K., 81e:30014

Rubinstein, Zalman (with Weit, Yitzhak) An extremal problem of the Markov-Bernstein type for lacunary polynomials. 81j:30018

On a problem of J. L. Walsh. 81e:30014

Some properties of two analytic functions associated with complex polynomials. 81j:30019

Saak, E. M. The analogue of Neumann's theorem in the class $H_2^{(1)}(\Omega)$. (Russian) 81a:30005

Shaw, J. K. (with Prather, Carl L.) Zeros of successive derivatives and iterated operators on analytic functions. 81e:30014

(Shields, Allen L.) See Levin, B. Ja., 81k:30011

Ten, V. D. (with Krasnov, Ja. A.) Roots of polynomials with real coefficients. (Russian. Kazakh summary) 81e:30015

(Thielman, H. P.) See Levin, B. Ja., 81k:30011

Voorhoeve, M. A generalization of Descartes' rule. 81e:30016

Weit, Yitzhak See Rubinstein, Zalman, 81j:30018

Welker, Gunter Haarsche Systeme von komplexen Exponentialsummen. 81e:30017

secondary classifications:

Alan, Mahfooz See Zahoor, Neyamat, (81f:12014)

Balk, M. B. (with Manuilov, N. F.) Factorization of an entire polyanalytic function of several variables having a bounded null set. (Russian) (81e:33011)

Belabasi, Ju. See Sadovnich, V. A.; et al., (81k:30033)

Boas, R. P., Jr. (with Prather, Carl L.) Final sets for operators on finite Fourier transforms. (81b:42045)

Ezell, Cloyd L. (with Marx, Morris L.) Branched extensions of curves in orientable surfaces. (81i:57004a)

Branched extensions of curves in compact surfaces. (81i:57004b)

Govil, N. K. On a theorem of S. Bernstein. (81e:26012)

Kasten, Volker (with Schmieder, Gerald) Die Koeffizientenkörper schlichter Trinome. (81g:30025)

Lewis, John L. Applications of a convolution theorem to Jacobi polynomials. (81d:33007)

Ljubilkin, V. A. See Sadovnich, V. A.; et al., (81k:30033)

MacFarlane, A. G. J. (with Postlethwaite, I.) Extended principle of the argument. (81e:93071)

Manuilov, N. F. See Balk, M. B., (81e:33011)

Marx, Morris L. See Ezell, Cloyd L., (81i:57004a)

Miyahara, Yasuaki A theorem on linear isomorphisms of a space of analytic functions on a Riemann surface. (81b:30078)

Postlethwaite, I. See MacFarlane, A. G. J., (81e:93071)

Prather, Carl L. On the zeros of derivatives of balanced trigonometric polynomials. (81j:42002)

See also Boas, R. P., Jr., (81b:42045)

Prešić, Marica D. On Ostrowski's fundamental existence theorem in the complex case. (81g:65062)

Reed, Martin A series solution for the root of a polynomial. (81g:65063)

Sadovnich, V. A. (with Ljubilkin, V. A.; Belabasi, Ju.) Regularized sums of roots of an entire function of a certain class. (Russian) (81k:30033)

Schmieder, Gerald See Kasten, Volker, (81g:30025)

Wolf, Edwin Smoothness properties of functions in $R^2(X)$ at certain boundary points. (81a:46031)

Zahoor, Neyamat (with Alan, Mahfooz) Zeros of polar-composite polynomials in algebraically closed fields. (81f:12014)

30C20 Conformal mappings of special domains

Bereslavskii, E. N. Conformal mapping onto a rectangle of some circular polygons with cuts. (Russian) 81b:30012

Conformal mapping of certain circular polygons with cuts. (Russian. English summary) 81e:30015

Conformal mapping of a half plane on circular quadrangles with a cut. (Russian) 81e:30016

Conformal mapping of some circular polygons on a rectangle. (Russian) 81j:30020

A method of conformal mapping of circular quadrangles. (Russian) 81i:30013

Clekivili, A. R. Conformal mapping of a half-plane on circular polygons. (Russian. Georgian and English summaries) 81k:30014

Dundchenko, L. O. Convex mappings of grids. (Russian. English summary) 81b:30013

Jackson, R. J. V. On the boundary values of Riemann's mapping function. 81k:30011

Karupa, E. V. Finite-difference smoothnesses of conformal homeomorphisms. (Russian) 81e:30018

Moduli of smoothness of conformal mappings. (Russian) 81j:30021

Lehto, Olli (with Tammi, Olli) Schwarzian derivative in domains of bounded boundary rotation. 81b:30014

Reuggli, H. On holomorphic mappings of annuli into annuli. 81e:30019

Tammi, Olli See Lehto, Olli, 81b:30014

Volkov, E. A. An exponentially converging method of conformal mapping of multiangular domains. (Russian) 81d:30012

Weitzmann, Allen A symmetry property of the Poincaré metric. 81b:30015

secondary classifications:

- Andrievskii, V. V. Direct theorems of approximation on continua with a piecewise-conformal boundary. (Russian. English summary) (81j:30057)
- Bowen, Rufus Hausdorff dimension of quasicircles. (81g:57023)
- Ignatov, Ju. A. Groups of linear fractional transformations generated by three elements. (Russian) (81i:20059)
- Lupaş, M. (with Pascu, N.; Podaru, V.) On some classes of hypergeometrical functions which lead to conformal mapping. (See 81j:93006b)
- Murill, Malcolm On a hyperanalytic geometry for complex functions. (81e:51009)
- Pascu, N. See Lupaş, M.; et al., (See 81j:93006b)
- Podaru, V. See Lupaş, M.; et al., (See 81j:93006b)

30C25 Covering theorems in conformal mapping theory

- Dubinin, V. N. Covering of vertical segments by conformal mappings. (Russian) 81m:30008

30C30 Numerical methods in conformal mapping theory [See also 65E05.]

- Anderson, Dale See Chakravarthy, Sukumar, 81b:30016
- Chakravarthy, Sukumar (with Anderson, Dale) Numerical conformal mapping. 81b:30016
- Fornberg, Bengt A numerical method for conformal mappings. 81m:30009
- Menikoff, Ralph (with Zemach, Charles) Methods for numerical conformal mapping. 81h:30012
- Opler, Gerhard Conformal mappings onto prescribed regions via optimization techniques. 81h:30015
- Trefethen, Lloyd N. Numerical computation of the Schwarz-Christoffel transformation. 81g:30012a
- Erratum: "Numerical computation of the Schwarz-Christoffel transformation". 81g:30012b
- Zemach, Charles See Menikoff, Ralph, 81h:30012

secondary classifications:

- Grassmann, Eckhard (with Rokne, Jon) Calculation of extremum problems for univalent functions. (81c:30024)
- Rokne, Jon See Grassmann, Eckhard, (81c:30024)
- Volkov, E. A. An exponentially converging method of conformal mapping of multangular domains. (Russian) (81d:30012)
- Wang, A. P. On surface-area integration and the related mapping. (81c:65013)
- Weisel, Jutta Lösung singularer Variationsprobleme durch die Verfahren von Ritz und Galerkin mit finiten Elementen—Anwendungen in der konformen Abbildung. (81c:65062)

30C35 General theory of conformal mappings

- Aksent'ev, L. A. (with Šabalin, P. L.) Problems of S. N. Andrianov. (Russian) 81j:30022
- Belyi, V. I. Local metric properties of a conformal mapping of a simply connected domain onto the exterior of a unit circle. (Russian) (See 80c:30023)
- Burbea, Jacob The Schwarzian derivative and the Poincaré metric. 81g:30013
- Campbell, Douglas M. (with Singh, Vikramaditya) Valence properties of the solution of a differential equation. 81a:30006
- Gorjainov, V. V. (with Gutjanskii, V. Ja.) On the geometric properties of a conformal mapping. (Russian) (See 80j:30003)
- Gutjanskii, V. Ja. See Gorjainov, V. V., (See 80j:30003)
- Ivanov, O. V. Complete lattices, uniform spaces and conformal-invariant extensions. (Russian. English summary) 81g:30014
- Jaremenko, L. A. See Mitjuk, I. P., 81h:30017
- Karapınar, E. V. A Kellogg type theorem for higher-order moduli of smoothness. (Russian) 81m:30010
- Kulikov, I. V. L_p -convergence of Bieberbach polynomials. (Russian) 81a:30007
- Mitjuk, I. P. (with Jaremenko, L. A.) The displacement of a regular image of a multiply connected domain. (Russian. English summary) 81h:30017
- Rodin, Burton (with Warschawski, Stefan E.) Extremal length and univalent functions. III. Consequences of the Ahlfors distortion property. 81k:30013
- (with Warschawski, Stefan E.) Estimates of the Riemann mapping function near a boundary point. 81f:30005
- (with Warschawski, Stefan E.) Extremal length and univalent functions. II. Integral estimates of strip mappings. 81k:30012
- Šabalin, P. L. See Aksent'ev, L. A., 81j:30022
- Simonenko, I. B. Convergence of Bieberbach polynomials in the case of a Lipschitz domain. (Russian) 81m:30011
- Singh, Vikramaditya See Campbell, Douglas M., 81a:30006
- Warschawski, Stefan E. See Rodin, Burton, 81f:30005; Rodin, Burton, 81k:30012 and Rodin, Burton, 81k:30013

secondary classifications:

- Harrington, Andrew N. Some extremal problems in conformal and quasiconformal mapping. (81c:30041)
- Jaminiuskas, A. I. A three-dimensional analogue of the Beltrami system. (Russian) (81i:35048)
- Näkki, Raimo Prime ends and quasiconformal mappings. (81k:30025)
- Pfluger, Albert On the diameter of planar curves and Fourier coefficients. (German summary) (81b:42024)
- Rodin, Burton (with Warschawski, Stefan E.) On the derivative of the Riemann mapping function near a boundary point and the Visser-Ostrowski problem. (81d:30049)
- Warschawski, Stefan E. See Rodin, Burton, (81d:30049)

30C40 Kernel functions and applications

- Badalamenti, Anthony F. The Fourier coefficients of the Bergman kernel. 81g:30015
- Beardon, A. F. (with Gehring, F. W.) Schwarzian derivatives, the Poincaré metric and the kernel function. 81c:30020
- Burbea, Jacob Projections of Bergman spaces over plane domains. 81h:30013
- Gehring, F. W. See Beardon, A. F., 81c:30020
- Saitoh, Saburo Approximation of the Bergman norm by the norms of the direct product of two Szegő spaces. 81e:30017
- Integral transform by the product of two Szegő kernel functions. 81j:30023

secondary classifications:

- Burbea, Jacob The annihilator of Bergman space. (81j:46048)
- Jackson, R. J. V. On the boundary values of Riemann's mapping function. (81h:30011)

30C45 Special classes of univalent and multivalent functions (star-like, convex, bounded rotation, etc.)

- Ahmad, Iqbal See Gupta, Ved P.; et al., 81j:30025
- Al-Amri, Hassoun S. Applications of the domain of variability of some functionals within the class of Carathéodory functions. (Polish and Russian summaries) 81e:30019
- The domain of variability of a functional within the class of univalent starlike functions. (Serbo-Croatian summary) 81c:30018
- Certain generalizations of prestarlike functions. 81b:30018
- Andraško, M. I. (with Kolesnik, L. I.) Constructive characteristic of a certain subclass of functions of the class E_s in domains with angles. (Russian) (See 80j:30003)
- Anh, V. V. (with Tuan, P. D.) On β -convexity of certain starlike univalent functions. 81b:30019
- See also Tuan, P. D., 81f:30015 and Tuan, P. D., 81g:30022
- Astahov, V. M. The range of a functional on the class of univalent functions with real coefficients. (Russian) 81d:30013
- Bahin, O. K. Functions of class S. (Russian) 81k:30014
- Bajpai, Shyam K. Special arithmetic and geometric means preserve Φ -like univalence. 81h:30014
- (with Dwivedi, S. P.) Certain classes of univalent analytic functions. 81k:30016
- Barnard, Roger W. (with Kellogg, Charles) Applications of convolution operators to problems in univalent function theory. 81f:30006
- Bharati, R. On α -close-to-convex functions. 81c:30021
- Bhargava, G. P. See Dwivedi, S. P.; et al., 81g:30016
- Boutellier, Roman Le théorème de déformation de la classe Σ^* . (English summary) 81e:30020
- Clunie, J. G. Inverse coefficients for convex univalent functions. 81i:30017
- Duren, Peter (with Leung, Y. J.) Logarithmic coefficients of univalent functions. 81i:30018
- (with Schober, Glenn) Nonvanishing univalent functions. 81e:30021
- Dwivedi, S. P. (with Bhargava, G. P.; Shukla, S. L.) On some classes of meromorphic univalent functions. 81g:30016
- See also Bajpai, Shyam K., 81i:30016
- Feng, J. See Wilken, Donald, 81f:30016
- Fukui, Seichi (with Sakaguchi, Kōichi) An extension of a theorem of S. Ruscheweyh. 81g:30017
- Goel, R. M. Radius of convexity of convex combination of certain analytic functions. 81d:30014
- (with Sohi, N. S.) On a subclass of univalent functions. 81i:30019
- (with Sohi, N. S.) On certain classes of analytic functions. 81j:30024
- (with Sohi, N. S.) A new criterion for p -valent functions. 81b:30020
- Gorjainov, V. V. A distortion theorem for a class of univalent functions. (Russian) 81i:30020
- Distortion theorem in the class of bounded univalent symmetric functions. (Russian. English summary) 81i:30021
- Gud'z, L. A. See Zmorovik, V. A., 81b:30025
- Gupta, Ved P. (with Jain, Pawan K.; Ahmad, Iqbal) On the radius of univalence of certain classes of analytic functions with fixed second coefficient. (French summary) 81j:30025
- Gutjanskii, V. Ja. On some classes of univalent functions. (Russian) 81i:30022
- Hall, R. R. On a conjecture of Clunie and Sheil-Small. 81b:30021
- A conformal mapping inequality for starlike functions of order $\frac{1}{2}$. 81h:30015
- Hamilton, D. H. On a conjecture of M. S. Robertson. 81i:30023
- (with Tuan, P. D.) Radius of starlikeness of convex combinations of univalent starlike functions. 81f:30007
- Hohlov, Ju. E. Operators and operations on the class of univalent functions. (Russian) 81m:30012
- Jain, Pawan K. See Gupta, Ved P.; et al., 81j:30025
- Jakubenko, O. A. See Zmorovik, V. A., 81b:30025
- Jaremenko, L. A. The starlikeness boundary and the convexity boundary for certain classes of regular functions in the unit disc. (Russian) 81c:30022
- Jondro, Halina Variations in a class of univalent functions. (Polish. Russian and English summaries) 81d:30015
- Jumeja, Om Prakash (with Mogra, Manak Lal) A class of univalent functions. (French summary) 81a:30008
- Kaidan, V. O. (with Pohilevič, V. O.) Boundaries of α -convexity for subclasses of starlike functions. (Russian) 81i:30024
- Kamitsaki, József Some growth problems for certain α -convex functions. 81f:30008
- Karunakaran, V. A certain class of analytic functions in the unit disc. 81b:30022
- Kellogg, Charles See Barnard, Roger W., 81f:30006
- Keselman, G. M. Extremal properties of certain spiral-like functions. (Russian) 81i:30025
- Kirwan, W. E. (with Schober, Glenn) Inverse coefficients for functions of bounded boundary rotation. 81j:30026

- Kocur, M. F. Radii of starlikeness and of convexity in some classes of analytic functions in the disc. (Russian) **81e:30022**
- Kolesnik, L. I. See Andraiko, M. L. (See **80j:30003**)
- Komatu, Yōsaku On a one-parameter additive family of operators defined on analytic functions regular in the unit disk. **81i:30026**
- Korobkova, I. K. See Zamorović, V. A., **81i:30027**
- Kumli, V. K. The radius of univalence and starlikeness of order β of some classes of regular functions. **81a:30009**
- Lachance, M. Remark on functions with all derivatives univalent. **81g:30018**
- Lah, Lulahi Some classes of functions generated by an integral. **81g:30019**
- Leung, Y. J. See Duren, Peter, **81i:30018**
- Lupu, M. (with Pascu, N.; Podaru, V.) Calculation of the order of starlikeness for α -starlike functions. (Romanian. English summary) **81i:30027**
- Mazur, Ryszard (with Treska, Anna) On some classes of β -starlike and of quasi- β -starlike meromorphic k -symmetric functions. **81a:30010**
- Merkes, E. P. Partial sum subordination of univalent functions. **81f:30009**
- Miller, James Convex and starlike meromorphic functions. **81k:30015**
- Miller, Sanford S. (with Mocanu, Petru T.; Reade, Maxwell O.) The order of starlikeness of alpha-convex functions. **81d:30016**
- Młota, Krystyna Interior pairs of Aharonov. (Polish. Russian and English summaries) **81d:30017**
- Mitrinović, Dragoslav S. On the univalence of rational functions. **81i:30028**
- Mocanu, Petru T. See Miller, Sanford S.; et al., **81d:30016**
- Mogra, Manak Lal See Juneja, Om Prakash, **81a:30008**
- Mouls, Edward J., Jr. Generalizations of the Robertson functions. **81c:30023**
- Noor, Khalida Inayat On a subclass of close-to-convex functions. **81f:30016** (with Thomas, D. K.) Quasiconvex univalent functions. **81f:30010**
- Nunokawa, Mamoru On the starlike boundary of univalent functions. (Japanese) **81c:30023**
- Pacarić, E. L. Sufficient conditions for univalence of certain integral representations. (Russian) **81h:30016**
- Padmanabhan, K. S. (with Parvatham, Rajagopalan) Radii of starlikeness of certain class of analytic functions. **81d:30018** (with Parvatham, Rajagopalan) On certain generalized close-to-star functions in the unit disc. **81i:30029**
- Parvatham, Rajagopalan See Padmanabhan, K. S., **81d:30018** and Padmanabhan, K. S., **81i:30029**
- Pascu, N. See Lupu, M.; et al., **81i:30027**
- Paikuleva, D. Z. Univalent functions that are convex in one direction. (Russian) **81f:30011**
- Paul, Surinder An extremal problem for starlike functions. **81c:30012**
- Pethe, Karol Maximum of the functional $|c_2| - |c_3|$ in the classes of functions S_M and S_M^* . (Polish. Russian and English summaries) **81d:30024**
- Estimation of the functionals $|c_{p+2} - \alpha c_{p+1}|$, $|c_{p+2}| - |c_{p+1}|$ of p -valent functions in the unit disc. (Polish. Russian and English summaries) **81d:30025**
- Maximum and minimum of the functional $\operatorname{Re}(c_{p+2} + \alpha c_{p+1})$ in the class of p -valent functions. (Polish. Russian and English summaries) **81d:30026**
- Podaru, V. See Lupu, M.; et al., **81i:30027**
- Pohilevič, V. O. See Zamorović, V. A., **81e:30026** and Kaidan, V. O., **81i:30024**
- Prohorov, D. V. Linearly invariant extensions of families of analytic functions. (Russian) **81i:30030**
- Rangarajan, M. R. On the radius of univalence and starlikeness of a class of analytic functions. **81g:30020**
- Reade, Maxwell O. See Miller, Sanford S.; et al., **81d:30016**
- Ripeanu, Dumitru Sur la fonctionnelle $f(z_1)/f(z_2)$ au cas des fonctions typiquement réelles. I. **81m:30013**
- (Ruscheweyh, Stephan) See Fukui, Seichi; et al., **81g:30017**
- Rytkina, T. A. Generation of discontinuous groups of nondegenerate linear-fractional transformations with real coefficients. (Russian) (See **80j:30003**)
- On the question of the discontinuity of groups of Möbius' transformations. (Russian) (See **80c:30023**)
- Sakaguchi, Kōichi See Fukui, Seichi, **81g:30017**
- Sălușean, Grigore Ștefan Properties of starlikeness and convexity preserved by some integral operators. **81c:30024**
- Sarang, Sangappa Mallappa (with Uraleaddi, Basappa Amrutappa) Functions whose real parts are greater than α . **81a:30011** (with Uraleaddi, Basappa Amrutappa) The radius of convexity and starlikeness for certain classes of analytic functions with negative coefficients. I. **81d:30019**
- Schober, Glenn See Duren, Peter, **81e:30021** and Kirwan, W. E., **81j:30026**
- Shell-Smith, T. The Hadamard product and linear transformations of classes of analytic functions. **81b:30023**
- Shukla, S. L. See Dwivedi, S. P.; et al., **81g:30016**
- Silverman, Herb (with Silvia, E. M.) The influence of the second coefficient on prestarlike functions. **81m:30014**
- Silvia, E. M. See Silverman, Herb, **81m:30014**
- Sinhalovskii, G. H. Differentiability and analyticity of univalent mappings. (Russian) **81d:30020**
- Singh, Ram (with Singh, Sunder) Integrals of certain univalent functions. **81e:30025**
- Singh, Sunder See Singh, Ram, **81e:30025**
- Štýk, V. A. Distortion theorems for a family of weakly univalent functions in a circle. (Russian) **81m:30015**
- Świątek, Jolanta Variational formulas in a class of univalent, symmetric and bounded functions. (Polish. Russian and English summaries) **81d:30021**
- Sohi, N. S. On a subclass of p -valent functions. **81m:30016**
- See also Goel, R. M., **81b:30020**; Goel, R. M., **81i:30019** and Goel, R. M., **81j:30024**
- Suffridge, T. J. A new criterion for starlike functions. **81b:30024**
- Swamy, S. R. The radius of univalence and starlikeness of certain analytic functions. I. **81f:30013a**
- The radius of univalence and starlikeness of certain analytic functions. II. **81f:30013b**
- Tammi, Olli On generalizing the power inequality for the first coefficient region in the class of bounded univalent functions. **81f:30014**
- Thangamani, J. The radius of univalence of certain analytic functions. **81a:30012**
- On starlike functions with respect to symmetric points. **81i:30031**
- Thomas, D. K. See Noor, Khalida Inayat, **81f:30016**
- Todorov, Pavel G. New explicit formulas for the coefficients of p -symmetric functions. **81g:30021**
- Limite de convexité d'une classe de Nevanlinna de fonctions analytiques. **81i:30017**
- Treska, Anna See Mazur, Ryszard, **81i:30018**
- Tuan, P. D. (with Anh, V. V.) Radii of convexity of two classes of regular functions. **81g:30022** (with Anh, V. V.) Extremal problems for functions of positive real part with a fixed coefficient and applications. **81f:30015**
- See also Anh, V. V., **81b:30019** and Hamilton, D. H., **81f:30007**
- Uraleaddi, Basappa Amrutappa See Sarang, Sangappa Mallappa, **81a:30011** and Sarang, Sangappa Mallappa, **81d:30019**
- Wilken, Donald (with Feng, J.) A remark on convex and starlike functions. **81f:30016**
- Yamashita, Shinji The normality of the derivative. **81g:30023**
- Zamorović, V. A. (with Gud'z, L. A.) Some classes of univalent functions in the disc $|z| < 1$ and in the domain $|z| > 1$. (Russian) **81b:30025** (with Jakubenko, O. A.) A generalization of the Mocanu-Reade theorem on the boundary of α -convexity of a class of star functions. (Russian) **81b:30026** (with Korobkova, I. K.) The order of starlikeness of a class of α -convex functions for $\alpha = 2$. (Russian) **81f:30027** (with Pohilevič, V. O.) α -convex functions for $\alpha < 0$. (Russian) **81e:30026**

secondary classifications:

- Bavrin, I. I. A class of univalent mappings in Banach spaces. (Russian. Georgian and English summaries) **(81k:32007)**
- Hoblov, Ja. E. Mocanu and Bazilevič functions of several complex variables. (Russian) **(81j:32008)**
- Komatu, Yōsaku A one-parameter family of operators defined on analytic functions in a circle. **(81f:47034)**
- Lewandowski, Zdzisław (with Libera, Richard; Zlotkiewicz, Eligiusz) Values assumed by Gel'fer functions. (Polish and Russian summaries) **(81f:30023)**
- Libera, Richard See Lewandowski, Zdzisław; et al., **(81f:30023)**
- Martio, Olli (with Sarvas, Jukka) Injectivity theorems in plane and space. **(81i:30039)**
- Noor, Khalida Inayat On the Hankel determinants of close-to-convex univalent functions. **(81k:30020)**
- Sarvas, Jukka See Martio, Olli, **(81i:30039)**
- Stankiewicz, Jan (with Stankiewicz, Zofia) Some remarks on subordination and majorization of functions. (Polish and Russian summaries) **(81f:30044)**
- Quasibordination and quasimajorization of analytic functions. (Polish and Russian summaries) **(81c:30036)**
- Stankiewicz, Zofia See Stankiewicz, Jan, **(81d:30044)**
- Zlotkiewicz, Eligiusz See Lewandowski, Zdzisław; et al., **(81f:30023)**

30C50 Coefficient problems for univalent and multivalent functions

- Bahtin, O. K. Some properties of the coefficients of univalent functions. (Russian) **81g:30024**
- Bereśniewicz-Rajca, Olga Coefficients of the Grunsky-Shah function. (Polish. Russian and English summaries) **81i:30018**
- Bogucki, Zbigniew (with Zderkiewicz, Józef) Le rayon d'univalence de certaines fonctions analytiques. (Polish and Russian summaries) **81d:30022**
- Bahouty, Daoud A note on Hadamard products of univalent functions. **81h:30017**
- Gal'perin, I. M. On the problem of the coefficients of multivalent spiral functions. (Russian) **81k:30019**
- Grassmann, Eckhard (with Rokne, Jon) Calculation of extremum problems for univalent functions. **81c:30024**
- Hempel, Joachim A. The Poincaré metric on the twice punctured plane and the theorems of Landau and Schottky. **81c:30025**
- Hummel, J. A. The second coefficient of univalent Bieberbach-Eilenberg functions near the identity. **81h:30018**
- Kasten, Volker (with Schmieder, Gerald) Die Koeffizientenkörper schlichter Trinome. **81g:30025**
- Noor, Khalida Inayat On the Hankel determinants of close-to-convex univalent functions. **81i:30020**
- Pethe, Karol The domain of the first coefficients of p -valent functions in the unit disc. (Polish. Russian and English summaries) **81d:30023**
- Pfluger, Albert On a coefficient inequality for schlicht functions. **81d:30027**
- Rahman, Q. I. (with Waniurski, J.) Coefficient regions for univalent trinomials. **81b:30027**
- Rokne, Jon See Grassmann, Eckhard, **81c:30024**
- Schmieder, Gerald See Kasten, Volker, **81g:30025**
- Sheng, Gong A simple proof of Bieberbach conjecture for sixth coefficient. **81g:30026**
- Targosz, Roman Formulas for the Nehari coefficients for Aharonov pairs of univalent functions. (Polish. Russian and English summaries) **81i:30032**
- Waniurski, J. See Rahman, Q. I., **81b:30027**
- Włodarczyk, Kazimierz Inequalities of Grunsky-Nehari type for pairs of vector functions. **81h:30019**
- Zderkiewicz, Józef See Bogucki, Zbigniew, **81d:30022**

secondary classifications:

- Brannan, David A. The Grunsky coefficients of meromorphic starlike and convex functions. (Polish and Russian summaries) **(81c:30054)**
- Duren, Peter (with Leung, Y. J.) Logarithmic coefficients of univalent functions. **(81i:30018)**

- Hamilton, D. H. On a conjecture of M. S. Robertson. (81b:30023)
 Lachance, M. Remark on functions with all derivatives univalent. (81g:30018)
 Leung, Y. J. See Duren, Peter, (81i:30018)
 Moskvina, V. G. (with Seljahova, T. N.; Sobolev, V. V.) Extremal properties of certain classes of functions with fixed first coefficients that map the half plane conformally onto itself. (Russian) (81d:30038)
 Moulis, Edward J., Jr. Generalizations of the Robertson functions. (81c:30023)
 Schöber, Glenn Coefficients of inverses of univalent functions with quasiconformal extensions. (81b:30039)
 Seljahova, T. N. See Moskvina, V. G.; et al., (81d:30038)
 Sobolev, V. V. See Moskvina, V. G.; et al., (81d:30038)
 Söhl, N. S. On a subclass of p -valent functions. (81m:30016)

30C55 General theory of univalent and multivalent functions

- Barnstein, Albert, II How the π -function solves extremal problems. 81b:30028
 Campbell, Douglas M. A truly isolated univalent function. 81b:30020
 Charzyński, Zygmunt (with Lawrynowicz, Julian) A simple method of deriving the Löwner equation with the help of algebraic functions. 81i:30033
 Goodman, A. W. Valence sequences. 81c:30026
 Gorjainov, V. V. On a parametric method of the theory of univalent functions. (Russian) 81f:30017
 Kortram, R. A. (with Tammi, Olli) Nonhomogeneous combinations of coefficients of univalent functions. 81m:30017
 Kubo, Tadao (with Owa, Shigeyoshi) On some class of analytic functions in an annulus. 81m:30018
 Lan, Kee Wai (with Liu, Ming Chit) On a criterion for the univalence of holomorphic functions. 81j:30028
 Lawrynowicz, Julian See Charzyński, Zygmunt, 81i:30033
 Lehto, Olli Remarks on Nehari's theorem about the Schwarzian derivative and schlicht functions. 81i:30034
 Liu, Ming Chit See Lan, Kee Wai, 81j:30028
 Mandlik, V. P. Area theorems for systems of multivalent functions. (Russian) 81a:30013
 Osgood, Brad G. Univalence criteria in multiply-connected domains. 81b:30021
 Owa, Shigeyoshi See Kubo, Tadao, 81m:30018
 Piranian, George (with Weitsman, Allen) Level sets of infinite length. 81j:30029
 Shah, Swarupchand M. (with Trimble, Selden Y.) On the zeros of univalent functions with univalent derivatives. 81c:30027
 Świąteńska, Jolanta The Grunsky-Nehari inequality for univalent, symmetric and bounded functions. (Polish. Russian and English summaries) 81c:30027
 Stegbrüchner, Hans Carleson sets and fixed-points of schlicht functions. 81c:30028
 Szopa, Halina On a certain variation of a rational function. (Polish. Russian and English summaries) 81d:30028
 Tammi, Olli See Kortram, R. A., 81m:30017
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 Yamashita, Shinji Inequalities for the Schwarzian derivative. 81j:30030

secondary classifications:

- Astahov, V. M. The range of a functional on the class of univalent functions with real coefficients. (Russian) (81d:30013)
 Beardon, A. F. (with Gehring, F. W.) Schwarzian derivatives, the Poincaré metric and the kernel function. (81c:30020)
 Bogucki, Zbigniew (with Zderkiewicz, Józef) Sur les majorantes convexes des fonctions analytiques. (Polish and Russian summaries) (81f:30024)
 Gehring, F. W. See Beardon, A. F., (81c:30020)
 Göktürk, Zerrin On p -valent quasimeromorphic functions. (81g:30029)
 Gorjainov, V. V. On parametric representation of univalent functions. (Russian) (81d:30040)
 Kasten, Volker Schlichte Linearkombinationen holomorpher Funktionen aus $H(D)$. (81c:32032)
 Komata, Yōsaku On a one-parameter additive family of operators defined on analytic functions regular in the unit disk. (81b:30026)
 Sarangi, Sangappa Mallappa (with Uralagaddi, Basappa Amrutappa) The radius of convexity and starlikeness for certain classes of analytic functions with negative coefficients. I. (81b:30019)
 Shell-Small, J. M. The Hadamard product and linear transformations of classes of analytic functions. (81b:30023)
 Uralagaddi, Basappa Amrutappa See Sarangi, Sangappa Mallappa, (81d:30019)
 Zderkiewicz, Józef See Bogucki, Zbigniew, (81f:30024)

30C60 Quasiconformal mappings

- Ahlfors, Lars V. The Hölder continuity of quasiconformal deformations. 81b:30029
 Anderson, Glen D. (with Vamanamurthy, M. K.) An extremal displacement mapping in n -space. 81b:30030
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- Belinskii, P. P.* (with *Godunov, S. K.*; *Ivanov, Ju. B.*; *Janenko, I. K.*) An application of a class of quasiconformal mappings to the construction of difference grids in domains with curvilinear boundaries. (Russian) (81g:65173)
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(with Warschawski, Stefan E.) Extremal length and univalent functions. II. Integral estimates of strip mappings. **(81k:30012)**

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Boese, G. Verallgemeinerung eines Lemmas von J. L. Walsh nebst einigen Anwendungen. (English and Russian summaries) **(81e:30011)**

Clorinescu, Ioana (with Zsidó, László) A minimum modulus theorem and applications to ultradifferential operators. **(81c:46030)**

Eygrafov, M. A. Асимптотические оценки и целые функции. (Russian) [Asymptotic estimates and entire functions] **(81b:30048)**

Petridis, Nicholas Distance and volume decreasing theorems for a family of harmonic mappings of Riemannian manifolds. **(81j:50040)**

Stephenson, Kenneth Weak subordination and stable classes of meromorphic functions. **(81m:30029)**

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30C85 Capacity and harmonic measure in the complex plane [See also 31A15.]

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Mocanu, Petru T. (with Ripeanu, Dumitru) An extremal problem for the transfinite diameter of a continuum. **81c:30043**

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Dost, Miroslav A note on the linear measure of Vituškin sets. (Czech. English summary) **(81d:28007)**

Herich, Joseph On the torsion function, Green's function and conformal radius: an isoperimetric inequality of Pólya and Szegő, some extensions and applications. **(81k:49034)**

Jackson, Howard L. Some exceptional sets in potential theory. **(81f:31004)**

Kubo, Tadao (with Owa, Shigeyoshi) On some class of analytic functions in an annulus. **(81m:30018)**

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(with Warschawski, Stefan E.) Extremal length and univalent functions. II. Integral estimates of strip mappings. **(81k:30012)**

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Sullivan, Dennis The density at infinity of a discrete group of hyperbolic motions. **(81b:58031)**

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30C99 None of the above, but in this section

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Zitomirskii, Ja. L. A generalization of a theorem of M. Riesz. (Russian) (See **81c:32001**)

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Pelish, V. I. Modulus of continuity of the solutions of Plateau's problem. (Russian) **(81b:53014)**

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30D05 Functional equations in the complex domain, iteration and composition of analytic functions [See also 34A20, 39-XX.]

Antonev, S. N. Generalized Cauchy-Riemann system with nearly regular coefficients. (Russian) (See **80c:30023**)

Bank, Steven B. (with Kaufman, Robert P.) On the growth of meromorphic solutions of the differential equation $(y')^m = R(z, y)$. **81k:30028**

Clark, Douglas N. Following functions of class H^2 . **81i:30044**

Goldstein, R. Permutability of entire functions of small growth. **81c:30046**

Gross, Fred (with Yang, Chung Chun) On prime periodic entire functions. **81k:30029**

Iľevskii, L. I. Solutions of functional equations in various classes of entire functions. (Russian) **81c:30047**

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Tamrazov, P. M. Finite difference identities and estimates of the moduli of smoothness of composite functions. (Russian) **81i:30045**

Yanghara, Niro Meromorphic solutions of the difference equation

$y(x+1) = y(x) + 1 + \lambda/y(x)$. II. **81b:30028**

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secondary classifications:

Bernstein, Albert, II Some sharp inequalities for conjugate functions. **(81d:42015)**

Čumak, F. V. (with Vasil'ev, I. L.) Integral equations of Abel type on a closed contour. (Russian) **(81h:45006)**

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Obolovill, E. A generalized Cauchy-Riemann system on multidimensional Euclidean space. (Russian) **(81j:30004)**

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30D10 Representations of entire functions by series and integrals

Blambert, Maurice (with Parvatham, Rajagopalan) Compléments à des théorèmes de S. Mandelbrojt et de Pólya-Bernstein. (English summary) **81c:30048**

Bondarenko, B. A. Some classes of entire transcendental functions and their application to differential equations. (Russian) **81b:30046**

Džrbadžian, M. M. On an infinite product. (Russian. Armenian and English summaries) **81j:30038**

Gödert, Winfried Ein Darstellungssatz für Linearkombinationen von

Interpolationsaufgaben. **81m:30023**

Orudžev, S. R. The connection between best approximations of a function by

quasipolynomials and its R -order, R -type. (Russian) **81j:30039**

Parvatham, Rajagopalan See Blambert, Maurice, **81c:30048**

Strebel, Kurt Inflation families of holomorphic functions. **81j:30040**

Vinnik'ii, B. V. The growth of entire functions that are given by the series

$\sum_{n=0}^{\infty} d_n/\lambda_n z$. (Russian) **81b:30047**

Representation of entire functions by series $\sum_{n=0}^{\infty} d_n/\lambda_n z$. (Russian) **81d:30046**

Vogl, F. Über eine Verallgemeinerung Bruijnscher Reihen. **81k:30030**

secondary classifications:

Bajpai, Shyam K. (with Shah, Swarupchand M.) Approximation and interpolation of entire functions and generalized orders. **(81j:30058)**

Lawrynowicz, Julian On holomorphic continuability of quasiregular functions. **(81c:30035)**

Maergolts, L. S. An analogue of a theorem of Pólya and its applications. (Russian)

- Armenian and English summaries) (81k:30032)
 Mitrinović, R. F. Theorems of the type of Liouville's theorem. (Russian) (81h:30006)
 Shah, Swarupchand M. See Bajpai, Shyam K., (81j:30058)
 Valsh, Satendra Kumar Generalized logarithmic means of an entire Dirichlet series. I. (81j:30011)

30D15 Special classes of entire functions and growth estimates

- Bajpai, S. S. See Bajpai, Shyam K.; et al., 81g:30034
 Bajpai, Shyam K. (with Singh Gautam, S. K.; Bajpai, S. S.) Generalizations of growth constants. I. 81g:30034
 Belabassi, Ju. See Sadovnikii, V. A.; et al., 81k:30033
 Ber, G. Z. The phenomenon of interference in an integral metric, and approximation by entire functions of exponential type. (Russian) 81b:30047
 Černyh, N. M. See Gonorov, N. V., 81b:30050 and Gonorov, N. V., 81j:30041
 Evgorov, M. A. ★Асимптотические оценки и целые функции. (Russian) [Asymptotic estimates and entire functions] 81b:30048
 Fricke, Gerd H. A note on bounded index and bounded value distribution. 81b:30049
 Gonorov, N. V. (with Černyh, N. M.) The complete regularity of the growth of a Borel transformation with a finite number of singular points of the analytic continuation of the associated function. (Russian) 81j:30041
 (with Černyh, N. M.) Tests for complete regularity of growth of some classes of entire functions of exponential type represented by Borel integrals, Newton and Dirichlet series, and by power series. (Russian) 81b:30050
 Hayman, W. K. On a conjecture of Littlewood. 81j:30042
 Juneja, Om Prakash (with Nandan, Krishna; Kapoor, G. P.) On the (p, q) -order and lower (p, q) -order of an entire Dirichlet series. 81k:30031
 Kapoor, G. P. See Juneja, Om Prakash; et al., 81k:30031
 Kondratjuk, A. A. (with Šeremeta, M. M.) Asymptotic behavior of a class of entire functions with a transitively measurable zero sequence. (Russian) 81b:30051
 Ljubiškin, V. A. See Sadovnikii, V. A.; et al., 81k:30033
 Maergoiz, L. S. An analogue of a theorem of Pólya and its applications. (Russian. Armenian and English summaries) 81k:30032
 Nandan, Krishna See Juneja, Om Prakash; et al., 81k:30031
 Nasibor, F. G. Extremal functions in certain classes of entire functions. II. (Russian) 81f:30026
 Orutiev, G. A. Growth of entire functions. (Russian. Azerbaijani and English summaries) 81f:30027
 Ozawa, Mitsuru A characterization of the cosine function by the value distribution. 81m:30024
 On a characterization of the exponential function and the cosine function by factorization. II. 81m:30025a
 On a characterization of the exponential function and the cosine function by factorization. III. 81m:30025b
 Paljutkin, V. G. The distribution of zeros of entire functions. (Russian) 81e:30049
 Petrenko, V. P. Growth of entire curves and algebroid functions. (Russian) 81d:30047
 Prather, Carl L. On special classes of entire functions whose zeros and growth are restricted. 81b:30052
 Sadovnikii, V. A. (with Ljubiškin, V. A.; Belabassi, Ju.) Regularized sums of roots of an entire function of a certain class. (Russian) 81k:30033
 Šeremeta, M. M. Properties of entire functions prescribed by Dirichlet series, and their derivatives. (Russian. English summary) 81c:30050
 The growth in an angle of entire functions represented by lacunary series. (Russian) 81h:30029
 The k -logarithmic density of a sequence, and its application to entire functions. III. (Russian) 81e:30039
 See also Kondratjuk, A. A., 81b:30051
 Singh Gautam, S. K. See Bajpai, Shyam K.; et al., 81g:30034
 Somorjai, Gábor On asymptotic functions. 81c:30040
 Srivastava, Girja S. The growth estimates of an entire function and its derivative. 81g:30035
 See also Valsh, Satendra Kumar, 81j:30043a and Valsh, Satendra Kumar, 81j:30043b
 Urabe, Hironobu (with Yang, Chung Chun) On a characteristic property of periodic entire functions. 81g:30034
 Valsh, Satendra Kumar Maximum term and the rank of an entire Dirichlet series. 81a:30018
 (with Srivastava, Girja S.) On the maximum term and its rank of an entire function of slow growth. I. 81j:30043a
 (with Srivastava, Girja S.) On the maximum term and its rank of an entire function of slow growth. II. 81j:30043b
 Yang, Chung Chun See Urabe, Hironobu, 81g:30034

secondary classifications:

- Aborn, Bruce J. (with Shankar, Hari) Generalized growth for functions analytic in a finite disc. (81j:30005)
 Avanesian, Vargala (with Traoré, Abou) Extension des théorèmes de Hartogs et de Lindelöf aux fonctions polyanalytiques de plusieurs variables. (81j:32006)
 Bajpai, Shyam K. (with Shah, Swarupchand M.) Approximation and interpolation of entire functions and generalized orders. (81:30058)
 On entire functions of bounded index defined by Dirichlet expansions. (81c:30007)
 Beugnot, L. I. Subharmonic functions of a complex variable that are bounded on a sequence of points of the real axis. I. (Russian) (81k:31002a)
 Subharmonic functions of a complex variable that are bounded on a sequence of points of the real axis. II. (Russian) (81k:31002b)
 Doronin, V. G. (with Ligan, A. A.) Best one-sided approximation by entire functions. (Russian. English summary) (81k:30051)
 Edrei, Albert Zeros of successive derivatives of entire functions of the form $h(z)\exp(-e^z)$. (81b:30053)

- Gol'dberg, A. A. (with Korenko, M. E.) The defect at zero of the logarithmic derivative of an entire function. (Russian) (81d:30048)
 Gross, Fred (with Yang, Chung Chun) On prime periodic entire functions. (81k:30029)
 Hellerstein, Simon (with Williamson, Jack) Reality of the zeros of derivatives of a meromorphic function. (81m:30028)
 Jain, D. R. See Saxena, R. K.; et al., (81m:46104)
 Jain, Pawan K. See Saxena, R. K.; et al., (81m:46104)
 Korenko, M. E. See Gol'dberg, A. A., (81d:30048)
 Ligan, A. A. See Doronin, V. G., (81k:30051)
 McCoy, Peter A. Polynomial approximation and growth of generalized axisymmetric potentials. (81b:35011)
 Mikljukov, V. M. Conformal type of surfaces, Liouville's theorem and Bernstein's theorem. (Russian) (81h:53013)
 Morimoto, Mitsuo (with Yoshino, Kunio) A uniqueness theorem for holomorphic functions of exponential type. (81g:46052)
 Saxena, R. K. (with Jain, D. R.; Jain, Pawan K.) On certain classes of entire functions over non-Archimedean fields. (81m:46104)
 Shah, Swarupchand M. See Bajpai, Shyam K., (81j:30058)
 Shankar, Hari See Aborn, Bruce J., (81j:30005)
 Silverman, Herb A sufficient condition for regular growth of entire functions. (81k:30036)
 Subrahmanyam, K. H. S. A fundamental growth relation between the supremum modulus and the maximum term of an entire Dirichlet series. (81b:30008)
 Traoré, Abou See Avanesian, Vargala, (81j:32006)
 Williamson, Jack See Hellerstein, Simon, (81m:30028)
 Yang, Chung Chun See Gross, Fred, (81k:30029)
 Yoshino, Kunio See Morimoto, Mitsuo, (81g:46052)
 Young, Robert M. ★An introduction to nonharmonic Fourier series. (81m:42027)

30D20 Entire functions, general theory

- Anderson, J. M. (with Clunie, J. G.) Picard sets of entire and meromorphic functions. 81m:30026
 Clunie, J. G. See Anderson, J. M., 81m:30026
 Davies, S. T. On the maximum term of an entire function without zeros. 81k:30035
 Doherey, Ram Prakash See Nandan, Krishna; et al., 81m:30027
 Edrei, Albert Zeros of successive derivatives of entire functions of the form $h(z)\exp(-e^z)$. 81b:30053
 Fridman, O. N. Estimates of the indicators of meromorphic functions of integral order with positive zeros and poles. (Ukrainian. Russian summary) 81b:30054
 Kobayashi, Tadashi Permutability and unique factorizability of certain entire functions. 81c:30051
 Koonen, Paul Proof of the Beurling-Malliavin theorem by duality and harmonic estimation. 81j:30048
 Leon'teva, L. A. (with Leon'teva, T. A.) Partitioning of a class of functions, represented by sequences of Dirichlet polynomials, into subclasses. (Russian) 81g:30036
 Leon'teva, T. A. See Leon'teva, L. A., 81g:30036
 Nandan, Krishna (with Doherey, Ram Prakash; Srivastava, R. S. L.) On the generalized type and generalized lower type of an entire function with index pair (p, q) . 81m:30027
 Paljutkin, V. G. Asymptotics of the number of zeros of entire functions. (Russian) 81c:30052
 Pittman, Franz (with Wyrwich, Herbert) Ganze Funktionen mit endlich vielen vorgeschriebenen asymptotischen Entwicklungen. 81j:30044
 Saitoh, Saburo Some inequalities for entire functions. 81j:30049
 Srivastava, R. S. L. See Nandan, Krishna; et al., 81m:30027
 Valsh, Satendra Kumar Geometric means of an entire function of order zero. 81c:30053
 Wyrwich, Herbert See Pittman, Franz, 81j:30044

secondary classifications:

- Bajpai, S. S. See Bajpai, Shyam K.; et al., (81g:30034)
 Bajpai, Shyam K. (with Singh Gautam, S. K.; Bajpai, S. S.) Generalizations of growth constants. I. (81g:30034)
 Berezovskii, M. I. (with Nagnibida, M. I.) A description of the continuous solutions of the operator equation $Y^2 = d^2/dz^2$ in the space of entire functions. (Russian) (81h:47012)
 Berz, Edgar Differentialoperatoren ganzer Funktionen. (81g:34015)
 Bos, R. P., Jr. (with Prather, Carl L.) Final sets for operators on finite Fourier transforms. (81h:42045)
 Edrei, Albert The Padé tables of entire functions. (81e:41029)
 Eremenko, A. E. The growth of subharmonic functions on asymptotic curves. (Russian) (81d:31006)
 Evgorov, M. A. ★Асимптотические оценки и целые функции. (Russian) [Asymptotic estimates and entire functions] (81b:30048)
 Giroux, André Approximation of entire functions over bounded domains. (81c:30070)
 Hayman, W. K. (with Vincze, I.) Markov-type inequalities and entire functions. (81c:60015)
 Masser, David W. Sur les fonctions entières à valeurs entières. (English summary) (81i:10048)
 Nagnibida, M. I. See Berezovskii, M. I., (81h:47012)
 Orutiev, G. A. Order and type of entire functions. (Russian. Azerbaijani and English summaries) (81d:30006)
 Ozawa, Mitsuru On a solution of $w'' + e^{-w} + (az + b)w = 0$. (81k:34006)
 Paljutkin, V. G. The distribution of zeros of entire functions. (Russian) (81c:30049)
 Prather, Carl L. See Bos, R. P., Jr., (81h:42045)
 Raitz, Carlos Entire functions with zeros at the prime numbers. (81a:10054)
 Ronkin, A. L. Theorem on division of quasipolynomials. (Russian) (81h:32006)
 Šeremeta, M. M. The k -logarithmic density of a sequence, and its application to entire functions. III. (Russian) (81e:30039)
 Singh Gautam, S. K. See Bajpai, Shyam K.; et al., (81g:30034)

- Srivastava, Gijra S. See Vaish, Satendra Kumar, (81j:30043a) and Vaish, Satendra Kumar, (81j:30043b)
- Vaish, Satendra Kumar (with Srivastava, Gijra S.) On the maximum term and its rank of an entire function of slow growth. I. (81j:30043a)
- (with Srivastava, Gijra S.) On the maximum term and its rank of an entire function of slow growth. II. (81j:30043b)
- Vincze, I. See Hayman, W. K., (81e:60015)
- Volkman, Lutz Anwendungen einer Methode von Pólya in der Theorie der ganzen Funktionen. (81f:30029)

30D30 Meromorphic functions, general theory

- Brannan, David A. The Grunsky coefficients of meromorphic starlike and convex functions. (Polish and Russian summaries) 81c:30054
- Girnyk, M. A. An analogue of Lindelöf's theorem on the type of canonical products. (Russian) 81i:30050
- Hellerstein, Simon (with Williamson, Jack) The zeros of the second derivative of the reciprocal of an entire function. 81c:30036
- Kondratjuk, A. A. The Fourier series method for entire and meromorphic functions of completely regular growth. (Russian. English summary) 81c:30055
- Lü, Yi Nian On direct transcendental singularities of the inverse function of an algebraic function. 81i:30051
- Mal, Dingur Proximate order of meromorphic functions. 81b:30055
- Williamson, Jack See Hellerstein, Simon, 81b:30036
- Yang, Le Angular distribution and multiple values between entire functions and their derivatives. 81g:30037
- Zhang, Qi Tal On the distribution of the values of meromorphic functions. (Chinese. English summary) 81j:30045

secondary classifications:

- Kurbatov, A. F. Generalized principle of the argument and logarithmic sum rules. (Russian. English summary) (81i:81090)
- Lutz, D. A. An application of the theory of invariants of meromorphic differential equations. (81m:34004)
- Mikrtumjan, R. R. (with Šikova, R. N.) Meromorphy of solutions of some classes of linear differential equations. (Russian) (81d:34005)
- Mohon'ko, V. D. Meromorphic solutions of systems of linear differential equations with meromorphic coefficients. (Russian) (81m:34006)
- Pačev, B. V. A class of convolution equations on a finite interval. (Russian) (81c:45005)
- Šikova, R. N. See Mikrtumjan, R. R., (81d:34005)
- Steinmetz, Norbert Zur Theorie der binomischen Differentialgleichungen. (81a:34008)
- Struble, Raymond A. Functions meromorphic in right half-planes are Laplace transforms. (81c:44006)
- Urahe, Hiroshu (with Yang, Chung Chun) On a characteristic property of periodic entire functions. (81k:30034)
- Yamashita, Shinji Inequalities for the Schwarzian derivative. (81j:30030)
- Yang, Chung Chun See Urahe, Hiroshu, (81k:30034)

30D35 Distribution of values, Nevanlinna theory

- (Andrian Cazacu, Cahira) See Dinghas, Alexander, 81k:30037
- Barzegian, G. A. Distribution of sums of a -points of meromorphic functions and Riemann surfaces of class F_p . (Russian) 81e:30041
- Bočuk, V. S. Some properties of proximate order. (Russian) 81b:30056
- Derkač, V. S. The relation between magnitude of deviation and magnitude of defect in G. Valiron's sense for p -dimensional and Q -quasiconformal entire curves. (Russian) (See 80c:30023)
- Dinghas, Alexander ★Wertverteilung meromorpher Funktionen in ein- und mehrfach zusammenhängenden Gebieten. (German) [Value distribution of meromorphic functions in singly and multiply connected domains] 81k:30037
- Dolichenko, E. P. A type of uniqueness boundary theorem for analytic functions. (Russian) 81i:30052
- Drasin, David An application of quasiconformal methods to a problem in value-distribution theory. 81a:30019
- Dirbailjan, A. M. A generalization of the formulas of R. Nevanlinna, F. Nevanlinna and Carleman. (Russian) 81c:30056
- Eremenko, A. É. The set of asymptotic values of a finite order meromorphic function. (Russian) 81b:30057
- See also Gol'dberg, A. A., 81c:30057
- Gol'dberg, A. A. On the question of the connection between a defect and a deviation of a meromorphic function. (Russian) 81b:30058
- (with Eremenko, A. É.) Asymptotic curves of entire functions of finite order. (Russian) 81c:30057
- The minimum modulus of a meromorphic function of slow growth. (Russian) 81c:30058
- Sets on which the modulus of an entire function has a lower bound. (Russian) 81c:30059
- (with Korenkov, M. E.) The defect at zero of the logarithmic derivative of an entire function. (Russian) 81d:30048
- The sum of defects of a meromorphic function and its derivative. (Russian) 81b:30030
- Gundersen, Gary G. Meromorphic functions that share finite values with their derivative. 81b:30031
- Hayman, W. K. (with Korenblum, Boris) A critical growth rate for functions regular in a disk. 81b:30059
- He, Yu Zuo On the multiple values of algebroid functions. (Chinese. English summary) 81b:30032
- Hellerstein, Simon (with Williamson, Jack) Reality of the zeros of derivatives of a

meromorphic function. 81m:30028

- Hempel, Joachim A. Precise bounds in the theorems of Schottky and Picard. 81i:30053
- Hinkkanen, Almo On the averages of the counting function of a meromorphic function. 81b:30060
- Kamynis, I. P. A generalization of Marcinkiewicz's theorem on entire characteristic functions of probability distributions. (Russian. English summary) 81b:30061
- Klč, Alois On exceptional values of holomorphic mappings of Riemann surfaces. 81i:30054
- Kobayashi, Tadashi See Niinö, Kiyoshi, 81j:30046
- Korenblum, Boris See Hayman, W. K., 81b:30059
- Korenkov, M. E. See Gol'dberg, A. A., 81d:30048
- Lanzina, T. B. Exceptional sets of values for functions that are meromorphic in $|z| < \alpha$. (Russian) 81b:30033
- (Nevanlinna, Rolf) See Dinghas, Alexander, 81k:30037
- Niinö, Kiyoshi (with Kobayashi, Tadashi) Recent progress on Nevanlinna theory. (Japanese) 81j:30046
- Ostrowski, I. V. A class of functions of bounded variation on the line defined by their values on a half line. (Russian. English summary) 81b:30034
- Šalverdan, A. Ju. Decrease of bounded functions that are analytic in the disc. (Russian. Armenian and English summaries) 81b:30055
- Sarangi, Sangappa Mallappa On $\rho(r)$ -defect and Picard Borel theorem. (See 80a:30007)
- See also Singh, S. K., 81c:30060
- Silverman, Herb A sufficient condition for regular growth of entire functions. 81b:30038
- Singh, S. K. (with Sarangi, Sangappa Mallappa) Uniqueness theorems of meromorphic functions. 81c:30060
- Toppi, Sakari On the value distribution of meromorphic functions with a deficient value. 81b:30039
- Venkatschallenger, K. Elliptic modular functions and Picard's theorem. 81f:30028
- Volkman, Lutz Über ganze Funktionen der unteren Ordnung $\mu < 1$. 81b:30062
- Anwendungen einer Methode von Pólya in der Theorie der ganzen Funktionen. 81f:30029
- Williamson, Jack See Hellerstein, Simon, 81m:30028
- Yang, Le (with Zhang, Guang Hou) Deficient values and asymptotic values of entire functions. 81g:30038
- Common Borel directions of meromorphic functions and their derivatives. 81i:30056
- Zhang, Guang Hou See Yang, Le, 81g:30038

secondary classifications:

- Anderson, J. M. (with Clunie, J. G.) Picard sets of entire and meromorphic functions. (81m:30026)
- Bank, Steven B. (with Kaufman, Robert P.) On differential equations and functional equations. (81a:10048)
- (with Kaufman, Robert P.) On the order of growth of meromorphic solutions of first-order differential equations. (81d:34003)
- Bogda, Richard A. (with Shankar, Hari) Counterexamples for lower order of an analytic function. (81c:30005)
- Bronza, S. D. (with Tairova, V. G.) Profiles of Riemann surfaces. (Russian) (81f:30042)
- Brownawell, W. Dale (with Masser, David W.) Multiplicity estimates for analytic functions. II. (81j:10046b)
- (with Masser, David W.) Multiplicity estimates for analytic functions. I. (81j:10046a)
- Clunie, J. G. See Anderson, J. M., (81m:30026)
- Dankel, Thad, Jr. On moduli of continuity of analytic and harmonic functions. (81b:31003)
- Fricke, Gerd H. A note on bounded index and bounded value distribution. (81b:30040)
- Hille, Einar Higher order Briot-Bouquet differential equations. (81k:34004)
- Jacob, Mathias (with Offord, Cyril) Les fonctions aléatoires dans le disque unit. (English summary) (81i:42028)
- Kaufman, Robert P. See Bank, Steven B., (81a:10048) and Bank, Steven B., (81d:34003)
- Kočinjan, L. S. See Sarkisjan, S. C., (81d:32004)
- Marčenko, I. I. The growth of meromorphic minimal surfaces. (Russian) (81c:53006)
- Masser, David W. See Brownawell, W. Dale, (81j:10046a) and Brownawell, W. Dale, (81j:10046b)
- Mattila, Pertti (with Rickman, Seppo) Quasiregular mappings and value distribution. (81c:30037)
- Mohon'ko, V. D. Magnitudes of deviations for the transcendental solution of a differential equation. (Russian) (81k:34005)
- Mural, Takafumi Sur la distribution des valeurs des séries lacunaires. (81g:30004)
- Offord, Cyril See Jacob, Mathias, (81i:42028)
- Rickman, Seppo On the theory of quasiregular mappings. (81k:30026)
- See also Mattila, Pertti, (81c:30037)
- Sarkisjan, S. C. (with Kočinjan, L. S.) A theorem of Picard type. (Russian) (81d:32004)
- Schponjan, L. A. Radial variations of the Blaschke-Džrbaljan products B_p and P_p . (Russian. Armenian and English summaries) (81g:30043)
- Shankar, Hari See Bogda, Richard A., (81c:30005)
- Steinmetz, Norbert Bemerkung zu einem Satz von Yosida. (81a:34007)
- Tairova, V. G. See Bronza, S. D., (81f:30042)

30D40 Cluster sets, prime ends, boundary behavior

- Carroll, F. W. A strongly annular function with countably many singular values. 81b:30063
- Fujita, Tatsuo Notes on cluster sets at ideal boundary points. 81b:30064
- Gavrilov, V. I. (with Mirzajan, M. M.) Boundary uniqueness theorems for meromorphic functions. (Russian. English summary) 81f:30030
- Hwang, Jun Shung On the ranges of analytic functions. 81g:30039
- Layek, A. K. Intersections of qualitative cluster sets. 81b:30035

- Mirzajan, M. M. See Gavrilov, V. I., 81f:30030
 Pomel'nikov, Ju. V. (with Suvorov, G. D.) A new family of conformally invariant metrizable bicompact extensions of a plane domain. (Russian) 81f:30057
 Rippon, P. J. The boundary cluster sets of subharmonic function. 81h:30036
 Rodin, Burton (with Warschawski, Stefan E.) On the derivative of the Riemann mapping function near a boundary point and the Visser-Ostrowski problem. 81d:30049

- Rang, D. C. Meier type theorems for general boundary approach and σ -porous exceptional sets. 81k:30040
 Suvorov, G. D. Relative metric and prime ends of a simply connected domain. (Russian) (See 80j:30003)

See also Pomel'nikov, Ju. V., 81f:30057

- Vrkoč, Ivo Correction to the paper: "Continuous dependence of holomorphic functions on partly given boundary values" [Czechoslovak Math. J. 23(98) (1973), 455-466; MR 47 #8839]. 81k:30041
 Warschawski, Stefan E. See Rodin, Burton, 81d:30049

secondary classifications:

- Bill, V. I. Distortion of distances under conformal mappings and direct theorems of constructive function theory. (Russian) (81c:30067)
 Dolichenko, E. P. A type of uniqueness boundary theorem for analytic functions. (Russian) (81i:30052)
 Dragulidze, O. P. Plessner and Meier theorems for harmonic functions of the Fedorov-Smirnov class. (Russian) (81j:31006)
 Ivanov, O. V. Limit sets of quasimeromorphic mappings. (Russian) (81d:30029)
 Karamzin, A. P. Boundary behavior of quasi-isometric mappings. (Russian) (81c:30032)
 Kufarev, B. P. (with Sokolov, B. V.) Correspondence of boundaries in mappings of a sphere. (Russian) (See 80c:30023)
 Lappan, Peter Functions which are large at most points near the boundary. (81k:30005)
 Rodin, Burton (with Warschawski, Stefan E.) Estimates of the Riemann mapping function near a boundary point. (81f:30005)
 Schenpp, Walter Approximations in the Hardy space $H^1(D)$ with respect to the norm topology. (81j:30053)
 Selhousian, L. A. Radial variations of the Blaschke-Džrbašjan products B_n and P_n . (Russian. Armenian and English summaries) (81g:30043)
 Sokolov, B. V. See Kufarev, B. P., (See 80c:30023)
 Tanaka, Hiroshi Boundary behaviors of quasiregular mappings. (81d:30037)
 Warschawski, Stefan E. See Rodin, Burton, (81f:30005)

30D45 Normal functions, normal families

- Campbell, Douglas M. Nonnormal sums and products of unbounded normal functions. II. 81j:30047
 See also Soms, L. R., 81d:30050
 Gu, Yong Xing Normal families of holomorphic functions. (Chinese) 81g:30040
 Maergolts, L. S. On a result of Valiron. (Russian) 81j:30048
 Pommerenke, Christian On the growth of normal analytic functions. 81h:30037
 Soms, L. R. (with Campbell, Douglas M.) Hadamard gap series and normal functions. 81d:30050

- Yamashita, Shinji A nonnormal function whose derivative has finite area integral of order $0 < p < 2$. 81k:30042

Criteria for functions to be Bloch. 81g:30041

Nonnormal Dirichlet quotients and nonnormal Blaschke quotients. 81j:30049

secondary classifications:

- Yang, Le Angular distribution and multiple values between entire functions and their derivatives. (81g:30037)

30D50 Blaschke products, bounded characteristic, bounded functions, functions with positive real part

- Ahara, Patrick On a theorem of Hayman concerning the derivative of a function of bounded characteristic. 81b:30065
 Aleksandrov, A. B. (with Džrbašjan, A. È.; Havin, V. P.) On the Carleson formula for the Dirichlet integral of an analytic function. (Russian. English summary) 81d:30051
 Anderson, J. M. On division by inner factors. 81d:30052
 Campbell, Douglas M. Analytic functions all of whose level sets are of infinite length. 81c:30042
 Carrell, O. D. Some properties of inner analytic functions. (Russian) 81j:30050
 Džrbašjan, A. È. See Aleksandrov, A. B.; et al., 81d:30051
 Džrbašjan, A. M. Blaschke-type functions for a half-plane. (Russian) 81c:30061
 Gupta, R. S. See Singh, Vikramaditya, 81d:30054
 Havin, V. P. See Aleksandrov, A. B.; et al., 81d:30051
 Hwang, Jun Shung (with Rung, D. C.) An improved estimate for the Bloch norm of functions in DooB's class. 81i:30058
 Jones, Peter W. Bounded holomorphic functions with all level sets of infinite length. 81b:30066
 Lindes, C. N. Boundary convergence and boundary limits of Blaschke products. 81j:30042

- Nestoridis, V. Inner functions invariant connected components. 81b:30067

- Peng, Jia Gui See Wang, Qi Ming, 81d:30055

- Rosenblum, Marvin (with Rovnyak, James) Change of variables formulas with Cayley inner functions. 81d:30053

- Rovnyak, James See Rosenblum, Marvin, 81d:30053

- Rang, D. C. See Hwang, Jun Shung, 81i:30058

- Selhousian, L. A. Radial variations of the Blaschke-Džrbašjan products B_n and P_n . (Russian. Armenian and English summaries) 81g:30043

See also Zaharjan, V. S., 81f:30031

- Singh, Vikramaditya (with Gupta, R. S.) An extremal problem for functions with

positive real part. 81d:30054

- Wang, Qi Ming (with Peng, Jia Gui) Critical points of finite Blaschke products and the equation $\Delta u = e^{2u}$. (Chinese. English summary) 81d:30055

- Yamashita, Shinji Hyperbolic Hardy class H^1 . 81i:30059

- Zaharjan, V. S. (with Selhousian, L. A.) A bound for the growth of functions of the class $N(u)$. (Russian. Armenian and English summaries) 81f:30031

secondary classifications:

- Abu-Muhamma, Yusef (with MacGregor, Thomas H.) Variability regions for bounded analytic functions with applications to families defined by subordination. (81m:30022)

- Anh, V. V. (with Tuan, P. D.) On β -convexity of certain starlike univalent functions. (81h:30019)

- Esterle, Jean A complex-variable proof of the Wiener Tauberian theorem. (French summary) (81j:43016)

- Filozof, L. I. A characterization of functions of the Herglotz class. (Russian) (81k:30005)

- Hara, Masaru On homeomorphisms of the unit circle preserving orientation. (81e:46031)

- Hayman, W. K. (with Korenblum, Boris) A critical growth rate for functions regular in a disk. (81b:30059)

- Korenblum, Boris See Hayman, W. K., (81b:30059)

- MacGregor, Thomas H. See Abu-Muhamma, Yusef, (81m:30022)

- McDonald, John N. Some operators on $L^2(dm)$ associated with finite Blaschke products. (81c:47033)

- Nguyen Xuan Uy Removable sets of analytic functions satisfying a Lipschitz condition. (81i:30076)

- Pressley, Andrew Decompositions of the space of loops on a Lie group. (81b:57037)

- Prék, Vlastimil A lower bound for the spectral radius. (81i:15027)

- Raszillier, I. Constraints on low energy Compton scattering amplitudes. (French summary) (81a:81005)

- Sučin, Ion Inner-outer factorization on multiply connected domains. (81i:47024)

- Tuan, P. D. See Anh, V. V., (81h:30019)

- Yamashita, Shinji A nonnormal function whose derivative has finite area integral of order $0 < p < 2$. (81k:30042)

Nonnormal Dirichlet quotients and nonnormal Blaschke quotients. (81j:30049)

30D55 H^p -classes

- Anderson, J. M. On a theorem of Rudin concerning the class A . 81d:30056

- Chen, Wen Zhong Some properties of Cauchy-Stieltjes integrals in the disc. (Chinese) 81j:30051

- Chow, Kwang Nan (with Protas, David) The bounded, analytic, Dirichlet finite functions and their fibers. 81d:30057

- García-Cuerva, José Weighted Hardy spaces. 81f:30032

- Garnett, John B. Two constructions in BMO. 81d:30058

- Gvaradze, M. I. Boundary properties of functions from the class $B(p, q, \lambda)$. (Russian) 81k:30043

- Hayman, W. K. (with Pommerenke, Christian) On analytic functions of bounded mean oscillation. 81g:30044

- Jones, Peter W. Carleson measures and the Fefferman-Stein decomposition of BMO(R). 81d:30059

- Kenig, Carlos E. Weighted Hardy spaces on Lipschitz domains. 81h:30038

Weighted H^p spaces on Lipschitz domains. 81d:30060

- Koosis, Paul Introduction to H_p spaces. 81c:30062

- Latter, Robert H. (with Uchiyama, Akihito) The atomic decomposition for parabolic H^p spaces. 81d:30061

- Maitani, Fumio Boundary functions and extremal problems for Hardy classes. 81d:30062

- Matešević, Miodrag The isoperimetric inequality and some extremal problems in H^1 . 81k:30044

- Ojima, Kunt Interpolation in H^p -spaces. 81g:30045

- Pommerenke, Christian See Hayman, W. K., 81g:30044

- Protas, David See Chow, Kwang Nan, 81d:30057

- von Remten, Michael Ideals generated by singular inner functions. 81j:30052

- Schenpp, Walter Approximations in the Hardy space $H^1(D)$ with respect to the norm topology. 81j:30053

- Stegenga, David A. A geometric condition which implies BMOA. 81h:30039

- Stepanian, S. S. Integral representation of functions of M. M. Džrbašjan's class $H_p(\alpha)$. (Russian. Armenian summary) 81c:30063

- Stephenson, Kenneth Weak subordination and stable classes of meromorphic functions. 81m:30029

- Timoney, Richard M. An example of a Bloch function. 81b:30068

- Trent, Taran T. $H^2(\mu)$ spaces and bounded point evaluations. 81j:30054

- Triebel, Hans On $L_p(L_q)$ -spaces of entire analytic functions of exponential type: complex interpolation and Fourier multipliers. The case $0 < p < \infty$, $0 < q < \infty$. 81k:30045

- Uchiyama, Akihito See Latter, Robert H., 81d:30061

- Verbitskii, I. È. Estimate of the norm of a function in a Hardy space in terms of the norms of its real and imaginary parts. (Russian) 81k:30046

- Videnskii, I. V. A generalization of Carleson's theory of imbedding and the interpolation of sequences of class P . (Russian. English summary) 81k:30060

secondary classifications:

- Ahrapetjan, G. M. Interpolation in the subclasses H_1 and H_∞ and some questions connected with the Cauchy integral. (Russian. Armenian and English summaries) (81c:30043)

- Berkson, Earl (with Porta, Horacio) The group of isometries of H^p . (81e:43009)

- Boyd, David M. The metric space $H^p(A)$, $0 < p < 1$, and its containing Banach space. (81a:46026)

- Burkholder, D. L. Weak inequalities for exit times and analytic functions. (81d:60080)
- Clark, Douglas N. Following functions of class H^2 . (81i:30044)
- Davis, Burgess Hardy spaces and rearrangements. (81h:42011)
- Dirbašjan, A. Ė. Weight inequalities for the Littlewood-Paley function in domains with conic points. (Russian. English summary) (81d:31011)
- Dirbašjan, M. M. The basis property of some biorthogonal systems, and the solution of a multiple interpolation problem in H^p classes in a half plane. (Russian) (81d:30006)
- Grigorjan, Š. A. The basis property of incomplete systems of rational functions in an angular domain. (Russian. Armenian and English summaries) (81e:30006)
- Jones, Peter W. Bounded holomorphic functions with all level sets of infinite length. (81h:30066)
- Kaballa, V. Imbedding of the Hardy classes into the space $L^p(\mu)$. (Russian. Lithuanian and English summaries) (81c:46045)
- Lou, Yuan Ren See Shen, Xie Chang. (81h:30071)
- Martirošjan, V. M. The closure and basis property of some biorthogonal systems and the solution of a multiple interpolation problem in angular domains. (Russian. Armenian and English summaries) (81e:30007)
- Mayer, Jacques Isometries in spaces of analytic functions with bounded derivative. (Russian) (81d:46061)
- Nestoridi, V. Inner functions invariant connected components. (81h:30067)
- Nishizawa, Kiyoko On closed subalgebras between A and H^∞ . (81m:46076)
- Poreda, S. J. (with Tepper, David E.) Approximation to linear functionals on H^1 by point evaluations. (81e:41051)
- Porta, Horacio See Berkson, Earl. (81e:43009)
- Riesenberg, Nathaniel R. An extreme point in $H^\infty(U^2)$. (81e:32007)
- Ronchblum, Marvin A corona theorem for countably many functions. (81e:46034)
- Shapiro, Joel H. Hausdorff measure and Carleson thin sets. (81m:28001)
- Shen, Xie Chang (with Lou, Yuan Ren) Best approximation by rational functions in H_p spaces ($p > 1$). (Chinese. English summary) (81h:30071)
- Širokov, N. A. A constructive description of spaces of functions that are analytic in a multiply connected domain and continuous in its closure. (Russian. English summary) (81e:46030)
- Steiner, Antonio A uniqueness theorem for square integrable high-pass functions. (81m:42007)
- Talibson, Mitchell H. (with Weiss, Guido) The molecular characterization of Hardy spaces. (81i:42013)
- An introduction to Hardy spaces on local fields. (81i:43015)
- Tepper, David E. See Poreda, S. J. (81e:41051)
- Vaidiac, V. P. Application of L. S. Pontrjagin's maximum principle to the solution of extremal problems in a class of functions with bounded mean modulus. (Russian) (81j:30035)
- Weiss, Guido See Talibson, Mitchell H. (81i:42013)
- Yamashita, Shinji Hyperbolic Hardy class H^1 . (81i:30059)

30D60 Quasianalytic and other classes of functions

- Rickman, Seppo On the number of omitted values of entire quasiregular mappings. 81m:30030

30D99 None of the above, but in this section

- Dudnikov, P. I. See Gorbachuk, M. L.; et al. 81m:30031
- Fedorova, L. B. See Gorbachuk, M. L.; et al. 81m:30031
- Gorbachuk, M. L. (with Dudnikov, P. I.; Fedorova, L. B.) Boundary values of analytic functions. (Russian) 81m:30031
- Hwang, Jun Shung (with Rung, D. C.) Proof of a conjecture of Doob. 81i:30061
- Ross, Raymond C. Composition operators on a space of Lipschitz functions. 81g:30046
- Rung, D. C. See Hwang, Jun Shung. 81i:30061

secondary classifications:

- Gadiliev, N. M. (with Šihaliev, N. I.) Approximation on rectifiable arcs in an integral metric. (Russian. Azerbaijani and English summaries) (81c:30069)
- Marshall, Donald E. Painlevé null sets. (81j:30036)
- Romo, W. J. A study of the completeness properties of resonant states. (81c:81049)
- Šihaliev, N. I. See Gadiliev, N. M. (81c:30069)

30Exx Miscellaneous topics of analysis in the complex domain

30E05 Moment problems, interpolation problems

- Airapetjan, G. M. Interpolation in the subclasses H_1 and H_∞ and some questions connected with the Cauchy integral. (Russian. Armenian and English summaries) 81e:30043
- Alexiewicz, A. An interpolation theorem for holomorphic functions. 81k:30047
- Bruma, Josquin Les ensembles d'interpolation des $A^p(D)$. (English summary) 81d:30063
- Cavaretta, Alfred S., Jr. (with Sharma, Ambikeshwar; Varga, Richard S.) Hermite-Birkhoff interpolation in the n th roots of unity. 81c:30064
- Charzyński, Zygmunt (with Kozłowski, Andrzej) Interpolation of the Chebyshev type on zeros of the derivative of a polynomial. I. (Polish summary) 81g:30047a
- (with Kozłowski, Andrzej) Interpolation of the Chebyshev type on zeros of the derivative of a polynomial. II. (Polish summary) 81g:30047b
- (with Kozłowski, Andrzej) Interpolation of the Chebyshev type on zeros of the derivative of a polynomial. III. (Polish summary) 81g:30047c
- Evgorov, M. A. The convergence of a class of interpolation problems. (Russian) 81c:30065
- German, A. H. Interpolation in the complex domain. (Russian. English summary) 81m:30032
- Grigorjan, Š. A. A property of functions from H^p ($0 < p < \infty$) in the half plane. (Russian. Armenian and English summaries) 81d:30064

- Havin, V. P. See Vinogradov, S. A., 81k:30048
- Hille, Einar On a class of interpolation series. 81g:30048
- Jenkins, James A. (with Saita, Nobuyuki) On the Pick-Nevanlinna problem. 81h:30069
- Jones, William B. (with Thron, W. J.; Waadeland, Haakon) A strong Stieltjes moment problem. 81j:30055
- Kalinichenko, L. I. Necessary and sufficient conditions for convergence of an interpolation series for a generalization of the Abel-Gončarov problem. (Russian) 81f:30033
- Classes of convergence and uniqueness of an Abel-Gončarov-type interpolation problem. (Russian) 81f:30034
- Kozłowski, Andrzej See Charzyński, Zygmunt. 81g:30047a; Charzyński, Zygmunt. 81g:30047b and Charzyński, Zygmunt. 81g:30047c
- Lévin, G. D. Some extremal and interpolation problems for functions of classes $H_p(\alpha)$. (Russian. English summary) 81i:30062
- Martirošjan, V. M. Closure and the basis property of certain biorthogonal systems and the solution of a multiple interpolation problem in $H_p(\alpha; \omega)$. (Russian) 81g:30049
- Nguyen Thuong Uen Interpolation with multiple nodes in a half-plane in the class of analytic functions of finite order. (Russian) 81i:30063
- Nikishin, E. M. A system of Markov functions. (Russian. English summary) 81i:30064
- Sharma, Ambikeshwar See Cavaretta, Alfred S., Jr.; et al. 81c:30064
- Shall, C. S. F. Birkhoff interpolation of entire functions. 81h:30040
- Saita, Nobuyuki See Jenkins, James A., 81h:30069
- Thron, W. J. See Jones, William B.; et al. 81j:30055
- Turku, H. An interpolation problem in the class H^p of functions in the half-plane. (Russian) 81h:30041
- Varga, Richard S. See Cavaretta, Alfred S., Jr.; et al. 81c:30064
- Vinogradov, S. A. (with Havin, V. P.) Letter to the editors: "Free interpolation in H^∞ and in certain other classes of functions." I [Zap. Nauch. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI) 47 (1974), 15-54; MR 52 # 14307]. (Russian) 81k:30048
- Waadeland, Haakon See Jones, William B.; et al. 81j:30055
- Zas'ko, Ju. N. Interpolation of functions by cyclic polynomials in the complex plane. (Russian. English summary) 81c:30066

secondary classifications:

- Ber, G. Z. The phenomenon of interference in an integral metric, and approximation by entire functions of exponential type. (Russian) (81i:30047)
- Dirbašjan, M. M. The basis property of some biorthogonal systems, and the solution of a multiple interpolation problem in H^p classes in a half plane. (Russian) (81d:30006)
- Gödert, Winfried Ein Darstellungssatz für Linearkombinationen von Interpolationsaufgaben. (81m:30023)
- Krein, S. G. (with Nikolova, L. I.) Holomorphic functions in a family of Banach spaces, interpolation. (Russian) (81j:46112)
- Linčuk, S. S. Some systems of analytic functions that form a basis, and their applications. (Russian. English summary) (81h:30069)
- Martirošjan, V. M. The closure and basis property of some biorthogonal systems and the solution of a multiple interpolation problem in angular domains. (Russian. Armenian and English summaries) (81e:30007)
- Nikolova, L. I. See Krein, S. G. (81j:46112)
- Owens, Robyn Sur les zéros des fonctions analytiques presque périodiques. (English summary) (81h:30010)
- Szabados, J. On some convergent interpolatory polynomials. (81g:41009)
- Triebel, Hans On $L_p(\cdot)$ -spaces of entire analytic functions of exponential type: complex interpolation and Fourier multipliers. The case $0 < p < \infty$, $0 < q < \infty$. (81k:30045)
- Videnšik, I. V. A generalization of Carleson's theory of imbedding and the interpolation of sequences of class I^p . (Russian. English summary) (81i:30060)

30E10 Approximation in the complex domain

- Alibekov, G. A. (with Kurbanov, A. A.) Sharpening of a theorem of S. N. Mergeljan on the approximation of a function of a complex variable in domains with a smooth boundary. (Russian) 81d:30066
- Andrievskii, V. V. Direct theorems of approximation on quasiconformal arcs. (Russian. English summary) 81j:30056
- Direct theorems of approximation on continua with a piecewise-conformal boundary. (Russian. English summary) 81j:30057
- Some properties of continua with a piecewise quasiconformal boundary. (Russian) 81k:30049
- Antonjuk, P. Ė. See Drzadik, V. K.; et al. 81c:30068
- (Aupetit, Bernard) See Complex approximation. 81d:30065
- Rajpal, Shyam K. (with Shah, Swarupchand M.) Approximation and interpolation of entire functions and generalized orders. 81j:30058
- Bill, V. I. Distortion of distances under conformal mappings and direct theorems of constructive function theory. (Russian) 81c:30067
- The application of conformal invariants to the approximation problems of functions of the complex variable. 81k:30050
- Approximation of functions of the classes $A^p(\bar{G})$ in finite domains with a quasiconformal boundary. (Russian) 81f:30035
- Dančenko, V. I. An integral estimate of the derivative of a rational function. (Russian) 81c:30067
- Doroin, V. G. (with Ligu, A. A.) Best one-sided approximation by entire functions. (Russian. English summary) 81k:30051
- Dvornik, M. Z. Approximation of functions that are analytic in a unit circle. (Russian) (See 80j:30003)
- Drzadik, V. K. (with Švař, O. I.; Antonjuk, P. Ė.) Approximation of some kernels. (Russian) 81c:30068
- Gadiliev, N. M. (with Šihaliev, N. I.) Approximation on rectifiable arcs in an integral metric. (Russian. Azerbaijani and English summaries) 81c:30069
- Gauthier, P. M. (with Goldstein, Myron; Ow, Wellington H.) Uniform approximation on unbounded sets by harmonic functions with logarithmic singularities. 81m:30053

- German, S. P. An analogue of the Hermite interpolation formula in domains with a quasiconformal boundary. (Russian) **81j:30059**
- Gleux, André Approximation of entire functions over bounded domains. **81c:30070**
- Goldshtein, Myron See Gauthier, P. M.; et al., **81m:30033**
- Hodberg, Lars Inge Capacities and approximation by analytic and harmonic functions. **81h:30042**
- Ibragimov, I. I. (with Mamedhanov, Dž. I.) Direct and inverse approximation theorems in the complex domain. (Russian) **81h:30065**
- Korevaar, Jacob Müntz approximation on arcs and Macintyre exponents. **81c:30071**
- Kovačeva, R. K. Rational approximations of meromorphic functions. (Russian) **81j:30060**
- Generalized Padé approximations and meromorphic extension of functions. (Russian) **81d:30068**
- Kurbanov, A. A. See Alibekov, G. A., **81d:30066**
- Ligun, A. A. See Doronin, V. G., **81k:30051**
- López Lagomasino, Guillermo The convergence of Padé approximants for meromorphic functions of Stieltjes type. (Russian) **81m:30034**
- Lou, Yunn Ren See Shen, Xie Chang, **81b:30071**
- Mamedhanov, Dž. I. See Ibragimov, I. I., **81h:30065**
- Martirozjan, V. A. Uniform approximation in the complex plane by polynomials with gaps. (Russian. Armenian summary) **81c:30044**
- Mason, J. C. Near-best L_1 approximations on circular and elliptical contours. **81d:30069**
- Neresjan, A. A. A theorem on simultaneous tangential approximation. (Russian. Armenian and English summaries) **81b:30070**
- Newman, Donald J. (with Reddy, A. R.) Rational approximation. III. **81h:30043**
- Nikšić, E. M. The Padé approximants. **81d:30070**
- O'Farrell, Anthony G. Estimates for capacities, and approximation in Lipschitz norms. **81d:30071**
- Ow, Wellington H. See Gauthier, P. M.; et al., **81m:30033**
- Reddy, A. R. See Newman, Donald J., **81h:30043**
- Rusak, V. N. (with Šeško, M. A.) Approximation of singular integrals by singular integrals with polynomial density. (Russian. English summary) **81a:30020**
- Samsanjia, Z. V. On approximate conformal mapping of simply connected domains that are close to one another. (Russian) (See **80c:30023**)
- Scheinberg, Stephen Uniform approximation by meromorphic functions having prescribed poles. **81a:30021**
- Approximation and nonapproximation on Riemann surfaces. **81c:30066**
- Noninvariance of an approximation property for closed subsets of Riemann surfaces. **81j:30061**
- Šeško, M. A. See Rusak, V. N., **81a:30020**
- Ševčuk, I. A. A constructive characterization of classes of functions that are continuous on a set $\mathbb{D} \subset \mathbb{C}$ for the k th modulus of continuity. (Russian) **81g:30050**
- Shah, Swarupchand M. See Bajpai, Shyam K., **81j:30058**
- Shen, Xie Chang (with Lou, Yunn Ren) Best approximation by rational functions in H_p spaces ($p > 1$). (Chinese. English summary) **81b:30071**
- Approximation and expansion by rational functions in certain class of domains. **81c:30067**
- Šhaliev, N. I. See Gadžiev, N. M., **81c:30069**
- Širokov, N. A. A remark concerning a problem of S. M. Nikol'skii. (Russian. English summary) **81b:30072**
- Suetha, S. P. Inverse theorems on generalized Padé approximations. (Russian) **81d:30072**
- Šváb, O. I. See Džadžik, V. K.; et al., **81c:30068**
- Tamrazov, P. M. Finite-difference smoothness and approximation. **81g:30051**
- Trent, Tavan T. (with Wang, James Li Ming) Uniform approximation by rational modules on nowhere dense sets. **81j:30062**
- Vol'berg, A. L. Simultaneous approximation by polynomials on the circle and in the interior of the disc. (Russian. English summary) **81c:30068**
- Wallin, Hans Potential theory and approximation of analytic functions by rational interpolation. **81c:30069**
- Wang, James Li Ming See Trent, Tavan T., **81j:30062**
- Wroniec, Zygmunt On the application of the orthonormal Franklin system to the approximation of analytic functions. **81f:30036**
- Wulbert, Daniel E. On the characterization of complex rational approximations. **81h:30073**
- Complex approximation ★Complex approximation. **81d:30065**
- Conference:
- Complex Approximation ★Complex approximation. **81d:30065**
- Quebec ★Complex approximation. **81d:30065**
- secondary classifications:
- Batšev, I. M. Mean approximation of functions by algebraic polynomials in domains with a quasiconformal boundary. (Russian. Azerbaijani and English summaries) **81f:30037**
- Be, G. Z. The phenomenon of interference in an integral metric, and approximation by entire functions of exponential type. (Russian) **81h:30047**
- Bierstedt, Klaus-Dieter A remark on vector-valued approximation on compact sets, approximation on product sets, and the approximation property. **81h:46019**
- Brezinski, Claude Padé-type approximants for double power series. **81d:41020**
- Čudnovsky, Gregory V. Rational and Padé approximations to solutions of linear differential equations and the monodromy theory. **81m:10066**
- Danilov, V. A. Elementary proofs of some properties of Padé approximants and of other linear-fractional approximations to the exponential. (Russian) **81a:41027**
- Dolženko, E. P. (with Uľjanov, P. L.) Some questions of the theory of functions. (Russian) **81h:26002**
- Džadžik, V. K. The constructive theory of functions on closed sets of the complex plane. (Russian) **81h:30001**
- (with Filozof, L. I.) The convergence rate of Padé approximants for some elementary functions. (Russian) **81b:41043**
- Phišev, L. I. See Džadžik, V. K., **81b:41043**

- Fuchs, W. H. J. On the degree of Chebyshev approximation on sets with several components. (Armenian and Russian summaries) **81a:41041**
- On Chebyshev approximation on several disjoint intervals. **81f:41004**
- Ganzburg, M. I. Čebyšev constants of closed sets of \mathbb{R}^n . (Russian) **81b:41059**
- Gončarov, A. A. (with López Lagomasino, Guillermo) Markov's theorem for multipoint Padé approximants. (Russian) **81j:41027**
- (with Lungu, K. N.) Poles of diagonal Padé approximants and the analytic continuation of functions. (Russian) **81j:41028**
- Haslinger, Friedrich Abel-Gončarov polynomial expansions in spaces of holomorphic functions. **81g:30007**
- Hille, Einar Contributions to the theory of Hermitian series. III. Meanvalues. **81k:30003**
- Homocovsch, Dorel On the mixed boundary value problem for harmonic functions in plane domains. (French summary) **81h:31004**
- Karma, O. Some asymptotic estimates of the nearness of roots of holomorphic functions. (Russian. English summary) **81k:30009**
- López Lagomasino, Guillermo See Gončarov, A. A., **81j:41027**
- Lundin, L. R. (with Stenger, Frank) Cardinal-type approximations of a function and its derivatives. **81c:41043**
- Lungu, K. N. See Gončarov, A. A., **81j:41028**
- Maruščak, I. Generalized polynomials of the best L_p -approximation subject to interpolatory constraints. **81d:41025**
- McCoy, Peter A. Polynomial approximation and growth of generalized axisymmetric potentials. **81b:35011**
- McDonald, John N. Approximation by quotients of rational inner functions. **81h:41036**
- Reich, Daniel Partitioning integers using a finitely generated semigroup. **81c:10003**
- Rodrigues, A. J. Convergence of Padé kernel approximants to the delayed Dirac function. **81c:41031**
- Saltch, Saburo Approximation of the Bergman norm by the norms of the direct product of two Szegő spaces. **81c:30017**
- Sapilidze, T. M. Sharp upper bounds of deviations of conjugate Riesz sums over classes of differentiable functions. (Russian) **81c:41047**
- Schempp, Walter Approximation und Transformationsmethoden. II. (English summary) **81f:41012**
- Stenger, Frank See Lundin, L. R., **81c:41043**
- Tošić, Dobroslav D. A modification of the Birkhoff-Young quadrature formula for analytical functions. **81j:41047**
- Uľjanov, P. L. See Dolženko, E. P., **81d:26002**
- Wu, Xue Mou Some boundary properties and imbedding inequalities of analytic functions. I. (Chinese. English summary) **81j:44010a**
- Some boundary properties and imbedding inequalities of analytic functions. II. (Chinese. English summary) **81j:44010b**

30E15 Asymptotic representations in the complex domain

secondary classifications:

- Bergère, M. C. Asymptotic behaviour of Feynman integrals. **81h:81029**
- Colombeau, J. F. Holomorphic maps with a given asymptotic expansion at a boundary point. **81f:46056**
- Gawronski, Wolfgang Asymptotic distribution of the zeros of power series. **81c:30012**
- Riekstina, V. Uniform asymptotic expansion of a class of integrals with oscillating kernels. (Russian) **81c:41072**
- Ursell, F. Integrals with a large parameter: a double complex integral with four nearly coincident saddle-points. **81j:41050**
- Vlasov, V. I. Solution to the Dirichlet problem using Fourier-series expansion. (Russian) **81j:31003**

30E20 Integration, integrals of Cauchy type, integral representations of analytic functions [See also 45Exx.]

- Aksent'ev, L. A. (with Pacević, E. L.) Estimates for functions that are harmonic in circular multiply connected domains. (Russian) **81c:30070**
- Alenikyn, Ju. E. Some formulas for multiply connected domains of the Poisson formula type. (Russian) **81j:30063**
- Bagdasarian, D. T. Classes of harmonic and holomorphic functions in a multiply connected domain and their parametric representations. (Russian. Armenian summary) **81b:30074**
- Batšev, I. M. Mean approximation of functions by algebraic polynomials in domains with a quasiconformal boundary. (Russian. Azerbaijani and English summaries) **81f:30037**
- Belyh, V. N. Calculation of some integrals of Cauchy type with logarithmic singularity. (Russian) **81h:30071**
- Čelidze, V. G. (with Džvaršelišvili, A. G.) An integral of Cauchy type. (Russian) **81c:30045**
- Džan'kin, E. M. Smoothness of Cauchy-type integrals. (Russian. English summary) **81d:30073**
- Smoothness of Cauchy type integrals. (Russian) **81c:30072**
- Džvaršelišvili, A. G. See Čelidze, V. G., **81c:30045**
- González Diegos, Belarmino A singular integral of Cauchy-Stieltjes type. (Russian) **81g:30052**
- Govorov, N. V. (with Grusevskii, S. P.) Some metric properties of boundary values of functions that are analytic on the half axis. (Russian) **81h:30052**
- Grusevskii, S. P. See Govorov, N. V., **81h:30052**
- Hayman, W. K. On a nonregular parametric integral. **81d:30074**
- Kac, B. A. See Zapuskalova, T. A., **81h:30054**
- Pustil'nik, V. A. A singular Cauchy integral on a countable set of closed contours. (Russian) **81h:30053**
- Pacević, E. L. See Aksent'ev, L. A., **81c:30070**

- Rahimov, R. M. Behavior of an integral of Cauchy type "near" the line of integration. (Russian) 81g:30053
- Simonenko, I. B. Factorizations and local factorization of measurable functions. (Russian) 81d:30075
- Torvajen, N. E. Integral representations of holomorphic functions by holomorphic densities and their applications. 81g:30054
- Zaputkalova, T. A. (with Kac, B. A.) A Riemann boundary value problem on a spiral-shaped contour. (Russian) 81k:30054

secondary classifications:

- Coifman, Ronald R. (with Meyer, Yves) Le théorème de Calderón par les "méthodes de variable réelle". (English summary) (81m:42009)
- Gahovik, A. S. Uniqueness of the Laplace-Euler transform of rapidly increasing functions. (Russian) (81f:44004)
- Goldschmidt, Bernd Funktionentheoretische Eigenschaften verallgemeinerter analytischer Vektoren. (81c:35022)
- Jurav, P. G. A singular integral with a logarithmic weight. (Russian) (81a:42020)
- Kadishin, V. P. Solution of singular integral equations with complex conjugate unknowns by the reduction method. (Russian) (81m:45010)
- Kubo, Tadao See Maltai, Fumio, (81j:30076)
- Löffler, Heinrich On the analytic theory of pseudoparabolic systems. (81b:31008)
- Maltai, Fumio (with Kubo, Tadao) Remarks on Ahlfors functions of open Riemann surfaces. (81j:30076)
- Meyer, Yves See Coifman, Ronald R., (81m:42009)
- Rusak, V. N. (with Šelko, M. A.) Approximation of singular integrals by singular integrals with polynomial density. (Russian. English summary) (81a:30020)
- Seifullae, R. K. A Riemann boundary value problem on a nonsmooth open curve. (Russian) (81k:30062)
- Šelko, M. A. See Rusak, V. N., (81a:30020)
- Spitkovskii, I. M. Some estimates for partial indices of measurable matrix-valued functions. (Russian) (81k:45004)
- Stepanjan, S. S. Integral representation of functions of M. M. Džrbajjan's class $H_p(\alpha)$. (Russian. Armenian summary) (81c:30063)

30E25 Boundary value problems [See also 45Exx.]

- Ahmedov, Saidmir Ahmedović The existence of a homeomorphic solution of a quasilinear Beltrami equation. (Russian) 81m:30035
- Akhbarov, R. A conjugation problem with prescribed principal parts for vectors. (Russian. Tajiki summary) 81c:30073
- (with Zvirivich, E. I.) The Riemann problem for piecewise-meromorphic functions with given principal parts on Riemann surfaces. (Russian) 81c:30046
- A problem of linear conjugacy with singularities. (Russian) 81c:30047
- Aksent'eva, E. P. A nonlinear Carleman problem with constant coefficients. (Russian) 81c:30055
- Alchin, A. G. The Riemann boundary value problem with a finite number of vorticity points. (Russian. English summary) 81c:30074
- The Carleman boundary value problem with an infinite index for a half plane in a class of functions of completely regular growth. (Russian. English summary) 81c:30048
- An inhomogeneous Riemann boundary value problem with infinite index of arbitrary degree order for a half plane. (Russian. English summary) 81d:30076
- Homogeneous boundary value problems with shift in the case of a finite number of vortex points. (Russian. English summary) 81c:30049
- Baškarev, P. G. A problem with a finite group of shifts for a pair of functions that are analytic in a domain. (Russian) 81c:30075
- Begheer, Heinrich (with Gilbert, Robert P.) On Riemann boundary value problems for certain linear elliptic systems in the plane. 81a:30022
- Čerškii, Ju. I. Integral transformation and problems of the theory of functions of complex variables. (Russian. English summary) 81a:30023
- Čibrikova, L. I. A special case of the Riemann problem on an unbounded contour. I. (Russian) 81j:30064
- Čuriev, H. Regular stability of the Riemann boundary value problem and calculation of partial indices. (Russian) 81c:30076
- Daniljuk, I. I. General boundary value problems for several analytic functions with measurable boundary conditions in domains with nonsmooth boundaries. (Russian) 81k:30072
- Decewicz, Grzegorz Noncontinuous and nonlinear Hilbert-Haseman problem for a system of arbitrary power. 81c:30073
- Didenko, V. D. (with Tihonenko, M. Ja.) The approximate solution of a matrix Riemann problem. (Russian) 81c:30050
- Dybin, V. B. See Grudskii, S. M., 81k:30044
- Efendiev, M. A. The degree of a Fredholm quasilinear mapping of quasicylindrical domains and the nonlinear Hilbert problem in an annulus. (Russian. Azerbaijani and English summaries) 81j:30065
- Elizarov, A. M. Proof of the solvability of certain mixed inverse boundary value problems for a regular function. (Russian) 81b:30075
- Gavdzinskii, V. N. (with Nečev, A. P.) A boundary value problem for pairs of functions that are analytic in noncoinciding regions. (Russian) 81j:30066
- Gerus, O. F. The Riemann boundary value problem on closed Jordan rectifiable curves. (Russian) 81m:30036
- Gilbert, Robert P. See Begheer, Heinrich, 81a:30022
- Grudskii, S. M. (with Dybin, V. B.) A Riemann boundary value problem in the space $L_p(T, p)$ with almost-periodic gaps in its coefficient. (Russian) 81k:30044
- Hvedelidze, B. V. A discontinuous problem of linear conjugacy with a piecewise-continuous coefficient. (Russian. Georgian and English summaries) 81k:30056
- Iskenderov, B. B. Generalization of a Carleman type boundary value problem. (Russian) (See 80d:30021)
- Jacenko, S. A. See Kovernyi, N. S., 81k:30057
- Jacko, A. I. (with Jacko, S. I.) On the theory of a generalized Riemann boundary value problem with piecewise-continuous coefficients. (Russian) 81k:30045
- Jacko, S. I. See Jacko, A. I., 81k:30045
- Juhonov, N. N. Approximate solution of a quasilinear boundary value problem of the theory of analytic functions. (Russian. Tajiki summary) 81j:30067
- Jurčenko, S. I. (with Mel'nik, I. M.; Spinko, L. I.) A nonlinear Riemann problem with discontinuous coefficients on a Riemann surface. (Russian) 81c:30051
- Kakičev, V. A. (with Le Din' Zon) The Hilbert problem for a bi-half-plane. (Russian) 81j:30068
- Kovernyi, N. S. (with Jacenko, S. A.) A generalized Riemann boundary value problem for a complex contour. (Russian) 81k:30057
- Le Din' Zon See Kakičev, V. A., 81j:30068
- MacLane, Gerald R. A growth condition for class \mathcal{E} . 81k:30058
- Mandlavidze, G. F. Application of the theory of generalized analytic functions to the study of boundary value problems of conjugacy with shift. (Russian) 81m:30037
- A family of boundary value problems of linear conjugacy. (Russian. Georgian and English summaries) 81b:30076
- Mel'nik, I. M. See Jurčenko, S. I.; et al., 81c:30051
- Mikojan, P. H. A special case of the Riemann problem for a countable set of contours with two limit points. (Russian) 81j:30069
- Nečev, A. P. See Gavdzinskii, V. N., 81j:30066
- Obnosov, Ju. V. Solution of a homogeneous power Hilbert problem with constant index. (Russian) 81k:30059
- On the solution of the linear Hilbert problem in a special case. (Russian) 81c:30052
- Oleksandrovič, I. M. See Paharėva, N. O., 81k:30074
- Orişanu, Mircea The role of Gauss' equation in plane motion with free and wet surfaces. 81k:30060
- Paharėva, N. O. (with Oleksandrovič, I. M.) On p -wave functions with wave-logarithmic characteristic p . (Russian. English summary) 81k:30074
- Primačuk, L. P. The Hilbert problem for the exterior of sections along a line with permutation matrices. (Russian. English summary) 81k:30061
- A nonlinear conjugation problem for a holomorphic vector on pairwise separated arcs. (Russian. English summary) 81k:30046
- Rasulov, K. M. On the solution of some boundary value problems of Riemann type for polyanalytic functions. (Russian) 81k:30047
- Rodin, Ju. L. (with Turakulov, A.) The Riemann boundary value problem for generalized analytic functions with singular coefficients on a compact Riemann surface. (Russian. Georgian and English summaries) 81g:30055
- Salehova, I. G. The Riemann problem for a countable set of intervals of the real axis. (Russian) 81m:30038
- Sallmov, R. B. (with Seleznev, V. V.) On the solution of Hilbert's boundary value problem with discontinuous coefficients. (Russian) 81m:30039
- Seifullae, R. K. A Riemann boundary value problem on a nonsmooth open curve. (Russian) 81k:30062
- Seleznev, V. V. See Sallmov, R. B., 81m:30039
- Sevčenko, V. I. The Hilbert problem for a holomorphic vector. (Russian) 81c:30077
- Širokova, E. A. Univalence of solutions of intrinsic inverse boundary value problems in the case of parameters x and r . (Russian) 81j:30070
- Slizkii, V. I. A boundary value problem for two functions on a Riemann surface. (Russian) 81b:30077
- The Carleman boundary value problem on a Riemann surface. (Russian) 81j:30071
- Spinko, L. I. See Jurčenko, S. I.; et al., 81c:30051
- Spitkovskii, I. M. On the theory of the generalized Riemann boundary value problem in the classes L_p . (Russian) 81c:30053
- Tihonenko, M. Ja. Approximate methods in the theory of boundary value problems with shift. (Russian) 81k:30048
- See also Didenko, V. D., 81c:30050
- Turakulov, A. See Rodin, Ju. L., 81g:30055
- Vekua, N. P. Some meromorphic solutions of a homogeneous Riemann-Hilbert boundary value problem for several unknown functions. (Russian. Georgian and English summaries) 81c:30075
- Žukova, N. I. The Carleman problem for a polygon. (Russian) 81m:30040
- Markuševič's problem for an annulus. (Russian) 81j:30072
- Zvirivich, E. I. See Akhbarov, R., 81c:30046

secondary classifications:

- Abramovich, S. See Strelitz, Sh., (81b:34010)
- Arslan, V. F. (with Evseev, E. G.) ★Об одной граничной задаче со сдвигом. (Russian) [A boundary value problem with shift] (81d:45006)
- Avhadiev, R. G. A special case of the Schwarz problem and some of its applications. (Russian) (81j:31002)
- Bilev, N. K. Analytic functions that are generalized in the sense of I. N. Vekua, and boundary value problems in fractional spaces. (Russian) (81j:30063)
- Evseev, E. G. See Arslan, V. F., (81d:45006)
- Freidkin, S. A. Mixed problem of potential theory for a plane with an infinite number of sections. (Italian summary) (81b:31002)
- Gonzalez Diego, Belarmino A singular integral of Cauchy-Stieltjes type. (Russian) (81g:30052)
- Habibullin, I. T. Inverse scattering problem for difference equations. (Russian) (81c:39001)
- Hayashi, Yoshio (with Hurd, R. A.) On a certain integral equation of Fredholm of the first kind and a related singular integral equation. (81d:45002)
- Homencovschi, Dorel On the mixed boundary value problem for harmonic functions in plane domains. (French summary) (81b:31004)
- Hurd, R. A. See Hayashi, Yoshio, (81d:45002)
- Kakičev, V. A. A Riemann problem for tube domains. (Russian) (81a:32005)
- Analysis of conditions for the solvability of a class of spatial Riemann problems. (Russian) (81c:32012)

Kita, Michtake The Riemann-Hilbert problem and its application to analytic functions of several complex variables. (81c:32028a)

The Riemann-Hilbert problem in several complex variables. II. (81c:32028b)

Konjak, I. I. Two-dimensional singular integral equations with analytic coefficients. (Russian) (81j:45008)

Kruglov, V. E. Abelian differentials and an equation of a surface that are defined by a cyclic group of substitutions. (Russian. Georgian and English summaries) (81m:30045)

Kupin, V. A. Faber series and the problem of linear conjugation. (Russian) (81c:30009)

Mamonian, A. General transmission and boundary value problems for first-order elliptic equations in multiply-connected plane domains. (81c:35051)

Ogawa, Wataru Boundary behavior of Dirichlet solutions at regular boundary points. (81h:31001)

Oleksandrovich, I. M. See **Paharova, N. O.** (81h:73024)

Paharova, N. O. (with Oleksandrovich, I. M.) p -wave functions and their application to a problem of plasticity theory. (Russian. English summary) (81h:73024)

Piren, N. N. Inverse boundary value problem for domains meromorphically equivalent to a bidisc. (Russian) (81c:32022)

Selimov, Ja. S. A loaded Hilbert problem. (Russian. Azerbaijani and English summaries) (81h:45008)

Sevchenko, V. I. The Hilbert problem for a holomorphic vector in a multidimensional space. (Russian) (81m:35053)

Spitkovskii, I. M. Some estimates for partial indices of measurable matrix-valued functions. (Russian) (81k:45004)

Strelitz, Sh. (with Abramovich, S.) On the existence of eigenvalues of differential operators dependent on a parameter. (81h:34010)

Tuzik, A. I. Discrete equations of convolution type with coefficients of power growth. (Russian. English summary) (81h:39003)

Wendland, Wolfgang, L. Elliptische Systeme in der Ebene. (81h:35017)

30E99 None of the above, but in this section

Chang, Chao Ping Mean value points of analytic functions of a complex variable. (81c:30078)

Džanali, G. A. (with Oziavili, T. S.) A criterion for an analytic function given on a circle. (Russian. Georgian and English summaries) (81m:30041)

Momahab, S. On the existence of right-coprime factorization for functions meromorphic in a half-plane. (81j:30073)

Nguyen Xuan Uy Removable sets of analytic functions satisfying a Lipschitz condition. (81c:30076)

Oziavili, T. S. See **Džanali, G. A.** (81m:30041)

secondary classifications:

Jank, Gerhard Lösungen der Euler-Darboux-Gleichung, die über die reelle Achse fortsetzbar sind. (81d:35065)

Karapın, E. V. Finite-difference smoothness of conformal homeomorphisms. (Russian) (81c:30018)

Owa, Shigeyoshi On applications of the fractional calculus. (81h:30004)

30Fxx Riemann surfaces

(Čirka, E. M.) See **Forster, O.** (81g:30056)

Forster, O. ★Ри́мановы по́верхности. (Russian) [Riemann surfaces] (81g:30056)

30F10 Compact Riemann surfaces and uniformization [See also 14H15, 32G15.]

Belinskii, P. P. An example of a universal Riemann surface containing as subdomains any compact surfaces with an edge. (Russian) (81h:30049)

Keen, L. (with Rauch, Harry E.; Vasquez, A. T.) Moduli of punctured tori and the accessory parameter of Lamé's equation. (81j:30074)

Mihal, Alexandru A generalization of Weierstrass points. (Romanian. French summary) (81j:30075)

Minda, Carl David Fixed points of analytic self-mappings of Riemann surfaces. (81h:30024)

Miyahara, Yasushi A theorem on linear isomorphisms of a space of analytic functions on a Riemann surface. (81h:30078)

Natanson, S. M. Lobačevskii geometry and automorphisms of complex M -curves. (Russian) (81m:30042)

Rauch, Harry E. See **Keen, L.**; et al., (81j:30074)

Rodin, Ju. L. The structure of the general solution of a Riemann boundary value problem for a holomorphic vector-valued function on a compact Riemann surface. (Russian) (81k:30063)

Singerman, David Symmetries and pseudosymmetries of hyperelliptic surfaces. (81c:30080)

Taniguchi, Masahiko On certain boundary points on the Wiener's compactifications of open Riemann surfaces. (81h:30064)

Vasquez, A. T. See **Keen, L.**; et al., (81j:30074)

secondary classifications:

Akaho, Takao (with Namba, Makoto) Examples of obstructed holomorphic maps. (81a:32018)

Benoist, Gérard Sur la multiplicité de la première valeur propre des surfaces riemanniennes. (English summary) (81h:58059)

Buser, Peter Dichtpunkte im Spektrum Riemannscher Flächen. (81h:58044)

Kerckhoff, Steven P. The asymptotic geometry of Teichmüller space. (81f:32029)

Kulkarni, R. S. On the principle of uniformization. (81h:53009)

Leichinger, Karl Über die Verteilung elliptischer Fixpunkte Fuchscher Gruppen. (81j:30077)

Namba, Makoto See **Akaho, Takao**, (81a:32018)

Porter, R. Michael Computation of a boundary point of Teichmüller space. (81j:32026)

Wald, Rolf Zur Konstruktion von Weierstrasspunkten mit vorgegebener Halbgruppe. (English summary) (81c:14013)

30F15 Harmonic functions on Riemann surfaces

Bauer, Udo Potentialtheoretische Charakterisierung Riemannscher Flächen. (81h:30065)

Glassner, Moses (with Nakai, Mitsuru) Inextremization and boundedness on open Riemann surfaces. (81c:30081)

Martynenko, M. D. (with Šipka, I. G.) Fundamental solutions of metaharmonic equations in a finite-sheeted Riemann space. (Russian. English summary) (81h:30079)

Nakai, Mitsuru An example on canonical isomorphism. (81h:30050)

See also **Glassner, Moses**, (81c:30081)

Šipka, I. G. See **Martynenko, M. D.**, (81h:30079)

30F20 Classification theory of Riemann surfaces

Ishiguro, Kazuo (with Zeller, Karl) Vorgegebene Grenzableitungen auf nichtisolierten Mengen. (81c:30079)

Nguyen Dinh Sang On an existence theorem on bordered Riemann surfaces. (81m:30043)

Segawa, Shigeo Harmonic majoration of quasibounded type. (81h:30077)

Zeller, Karl See **Ishiguro, Kazuo**, (81c:30079)

secondary classifications:

Alling, Norman L. Global ideal theory of meromorphic function fields. (81h:30009)

Bikantsev, I. A. Polyanalytic functions on Riemann surfaces. (Russian) (81m:30051)

Dalajian, S. G. Towers of curves and Prym varieties. (Russian. Armenian and English summaries) (81d:14017)

Komiyama, Kaname See **Kurbayashi, Akikazu**, (81c:14016)

Kurbayashi, Akikazu (with Komiyama, Kaname) On Weierstrass points and automorphisms of curves of genus three. (81c:14016)

30F25 Ideal boundary theory

Imai, Hideo On singular indices of rotation free densities. (81h:30080)

Kubo, Tadao See **Maitani, Fumio**, (81j:30076)

Maitani, Fumio (with Kubo, Tadao) Remarks on Ahlfors functions of open Riemann surfaces. (81j:30076)

Nishino, Toshio Prolongements analytiques au sens de Riemann. (English summary) (81a:30025)

secondary classifications:

Fujita, Tatsuo Notes on cluster sets at ideal boundary points. (81h:30064)

Kerckhoff, Steven P. The Nielsen realization problem. (81f:57002)

Kulkarni, R. S. On Hurwitz "34(g-1) theorem" and pseudofree actions. (81c:57043)

Maitani, Fumio Boundary functions and extremal problems for Hardy classes. (81d:30062)

Sato, Takeyoshi Comparison theorems for Banach spaces of solutions of $\Delta u = Pu$ on Riemann surfaces. (81c:31007)

Zareh, A. V. Algebraic characterization of certain classes of mappings and the perfectness of Wiener extensions of harmonic spaces. (Russian) (81e:54025)

30F30 Differentials on Riemann surfaces

Gardiner, Frederick P. On relative Teichmüller spaces and a globalization principle in Riemann surface theory. (81g:30057)

Kaplan, Wilfred On the trajectories of a quadratic differential. II. (81m:30044)

Kruglov, V. E. Abelian differentials and an equation of a surface that are defined by a cyclic group of substitutions. (Russian. Georgian and English summaries) (81m:30045)

Masur, Howard The Jenkins-Strebel differentials with one cylinder are dense. (81h:30081)

Matsui, Kunihiko (with Nishida, Kazuo) Notes on the Riemann-Roch theorem on open Riemann surfaces. (81h:30066)

Nishida, Kazuo See **Matsui, Kunihiko**, (81h:30066)

Shiba, Masakazu Abel's theorem for analytic mappings of an open Riemann surface into compact Riemann surfaces of genus one. (81h:30082)

Strebel, Kurt On the density of quadratic differentials with closed trajectories. (81h:30083)

Watanabe, Osamu Nuclear spaces of abelian differentials on open Riemann surfaces. (Japanese) (81c:30082)

Yamada, Akira Precise variational formulas for abelian differentials. (81h:30078)

secondary classifications:

Benko, Kornel (with Kothe, Monika; Semmler, Klaus-Dieter; Simon, Udo) Eigenvalues of the Laplacian and curvature. (81d:53028)

Gackstatter, Fritz Konstruktion vollständiger Minimalflächen von endlicher Gesamtkrümmung—eine Anwendung der klassischen Theorie der Funktionen und Differentiale auf kompakten Riemannschen Flächen. (81h:53011)

Gardiner, Frederick P. Three-holed spheres and Riemann surfaces. (81h:32000)

Kothe, Monika See **Benko, Kornel**; et al., (81d:53028)

Kra, Irwin On the Carathéodory metric on the universal Teichmüller space. (81g:32016)

Rodin, Ju. L. (with Turakulov, A.) The Riemann boundary value problem for generalized analytic functions with singular coefficients on a compact Riemann surface. (Russian. Georgian and English summaries) (81g:30055)

Semmler, Klaus-Dieter See **Benko, Kornel**; et al., (81d:53028)

Simon, Udo See **Benko, Kornel**; et al., (81d:53028)

Sitarayaya, M. Hyperbolic complex manifolds. (81h:32013)

Taniguchi, Masahiko Remarks on topologies associated with squeezing a nondividing

- loop on compact Riemann surfaces. (81b:32011)
 Tjuri, A. N. Generalization of the Weierstrass P -function and the moduli variety of marked Riemann surfaces. (Russian) (81b:14015)
 Periods of quadratic differentials. (Russian) (81b:14009)
 Turakulov, A. See Rodin, Ju. L., (81g:30055)

30F35 Fuchsian groups and automorphic functions [See also 10Dxx, 20H10, 32Gxx, 32Nxx.]

- Ahlfors, Lars V. Ergodic properties of groups of Möbius transformations. 81b:30079
 Baburin, Ju. S. On the solution of a problem of the theory of automorphic function theory. (Russian) 81f:30038
 Beardon, A. F. Fundamental domains and cyclic subgroups of Fuchsian groups. 81f:30039
 Écalle, Jean Un analogue des fonctions automorphes: les fonctions récurrentes. 81b:30084
 Lechinger, Karl Über die Verteilung elliptischer Fixpunkte Fuchscher Gruppen. 81j:30077
 Ljan, G. M. On the Teichmüller space and the Poincaré Θ -operator. (Russian) 81c:30054
 Metzger, Thomas A. The kernel of the Poincaré series operator. 81c:30083
 Pokazeev, V. I. A class of Appell functions for doubly periodic groups. (Russian) 81c:30055
 Pommerenke, Christian On Fuchsian groups of convergence type. 81c:30084
 Samokhin, M. V. Some questions related to problems of the existence of automorphic analytic functions with a given modulus of boundary values. (Russian) 81j:30078
 Sheingorn, Mark Boundary behavior of automorphic forms and transitivity for the modular group. 81j:30079
 Yamada, Akira On the linear transformations of Ahlfors functions. 81b:30080
 Žuravlev, I. V. Univalent functions and Teichmüller spaces. (Russian) 81b:30085

secondary classifications:

- Beardon, A. F. Hyperbolic polygons and Fuchsian groups. (81b:51015)
 Bers, Lipman A new proof of a fundamental inequality for quasiconformal mappings. (81i:30036)
 Bowen, Rufus (with Series, Caroline) Markov maps associated with Fuchsian groups. (81b:58036)
 Chen, Su Shing A theorem of Ahlfors for hyperbolic spaces. (81e:22011)
 Hayman, W. K. (with Pommerenke, Christian) On analytic functions of bounded mean oscillation. (81g:30044)
 Kudla, Stephen S. (with Millson, John J.) Harmonic differentials and closed geodesics on a Riemann surface. (81a:53041)
 Kuribayashi, Akikazu (with Sekita, Eitaro) On a family of Riemann surfaces. I. (81i:14018)
 Lin, Fu Lai Conformal symmetric embeddings of compact Riemann surfaces. (81c:32046)
 Millson, John J. See Kudla, Stephen S., (81a:53041)
 Pommerenke, Christian See Hayman, W. K., (81g:30044)
 Puzitsky, N. On Tsuji's and Pommerenke's examples for Fuchsian groups of convergence type. (81j:20065)
 Sekita, Eitaro See Kuribayashi, Akikazu, (81i:14018)
 Series, Caroline See Bowen, Rufus, (81b:58036)
 Sheingorn, Mark Transitivity for the modular group. (81k:10038)
 Taniuchi, Masahiko On certain boundary points on the Wiener's compactifications of open Riemann surfaces. (81k:30064)
 Tukia, Pekka On torsionless subgroups of infinitely generated Fuchsian groups. (81b:20059)
 Wason, Judith C. On the boundary of reduced Teichmüller space. (81c:32027)
 Wolpert, Scott An asymptotic formula for the Taylor coefficients of automorphic forms. (81d:10016)

30F40 Kleinian groups [See also 20H10.]

- Akaza, Tohru (with Furusawa, Harushi) The exponent of convergence of Poincaré series on some Kleinian groups. 81j:30080
 Apasov, B. N. On the problem of the existence of automorphic mappings in n dimensions. (Russian) 81c:30085
 Furusawa, Harushi See Akaza, Tohru, 81j:30080
 Inoue, Katsumi Remarks on the limit sets of Kleinian groups. 81k:30067
 Jakubov, E. H. Generalized Teichmüller spaces. (Russian) 81g:30058
 Jørgensen, Troels (with Marden, Albert) Two doubly degenerate groups. 81f:30040
 Krut'kal', S. L. Some properties of Kleinian groups and their deformations. (Russian) (See 80c:30023)
 Kulkarni, R. S. Groups with domains of discontinuity. 81m:30046
 Marden, Albert Geometric relations between homeomorphic Riemann surfaces. 81m:30047
 See also Jørgensen, Troels, 81f:30040
 Sakan, Ken-ichi On stability of finitely generated Kleinian groups. 81b:30086
 Senaki, Takehiko The residual limit points of the first kind and the nest groups. 81m:30048
 Yamamoto, Hiro-o Constructibility and geometric finiteness of Kleinian groups. 81k:30068

secondary classifications:

- Floyd, William J. Group completions and limit sets of Kleinian groups. (81e:57002)
 Riley, Robert An elliptical path from parabolic representations to hyperbolic structures. (81e:57011)
 Sato, Hiroaki On augmented Schottky spaces and automorphic forms. I. (81b:32009)
 Seppälä, Mika Bers' Teichmüller spaces of Klein surfaces. (81b:32010)

30F99 None of the above, but in this section

- Bärz, Ilie Fonctions de type méromorphe sur la bouteille de Klein. 81f:30041
 Bronza, S. D. (with Tairava, V. G.) Profiles of Riemann surfaces. (Russian) 81f:30042
 Gauthier, P. M. Meromorphic uniform approximation on closed subsets of open Riemann surfaces. 81f:30043
 Lin, Fu Lai Embeddable dihedral groups of Riemann surfaces. 81j:30081
 Schmieder, Gerald Zur teilschlichten Konkretisierung Riemannscher Flächen. 81j:30082
 Seleznev, V. A. Linear singular equations on quasiconformal contours and the problem of linear conjugation for a holomorphic vector on closed Riemann surfaces. (Russian) 81i:30081
 Shiga, Hiroshige On the boundary values of analytic functions on bordered Riemann surfaces. (Japanese summary) 81m:30049
 Tairava, V. G. See Bronza, S. D., 81f:30042
 Uluçay, Cengiz Characterizations of Riemann surfaces. (Turkish summary) 81c:30086

secondary classifications:

- Earle, C. (with Marden, Albert) Conformal embeddings of Riemann surfaces. (81g:30033)
 Ghisla, Dorin The modulus and the hyperbolic measure. (81g:30028)
 Hempel, Joachim A. The Poincaré metric on the twice punctured plane and the theorem of Landau and Schottky. (81c:30025)
 Jurčenko, S. I. (with Mel'nik, I. M.; Spinko, L. I.) A nonlinear Riemann problem with discontinuous coefficients on a Riemann surface. (Russian) (81c:30051)
 Kiké, Alois On exceptional values of holomorphic mappings of Riemann surfaces. (81i:30054)
 Li, Yi Nian On direct transcendental singularities of the inverse function of an algebroid function. (81i:30051)
 Marden, Albert See Earle, C., (81g:30033)
 Mel'nik, I. M. See Jurčenko, S. I.; et al., (81c:30051)
 Nakai, Mitsuru Strong Picard principle. (81k:31009)
 Scheinberg, Stephen Uniform approximation by meromorphic functions having prescribed poles. (81a:30021)
 Noninvariance of an approximation property for closed subsets of Riemann surfaces. (81j:30061)
 Spinko, L. I. See Jurčenko, S. I.; et al., (81c:30051)

30Gxx Generalized function theory

30G05 Non-Archimedean function theory [See also 12J25.]

- Gerritzen, Lothar On the Jacobian variety of a p -adic Schottky curve. 81m:30050
 Morita, Yasuo Analytic functions on an open subset of $P^1(k)$. 81c:30087
 Perrin, Yvette Fonctions analytiques sur certains corps valués au sens de Krull. 81i:30082

secondary classifications:

- Bosch, S. (with Dwork, B.; Robba, Philippe) Un théorème de prolongement pour des fonctions analytiques. (81m:32016)
 Dwork, B. See Bosch, S.; et al., (81m:32016)
 Gerritzen, Lothar Unbeschränkte Steinsche Gebiete von P_1 und nichtarchimedische automorphe Formen. (81h:10040)
 Robba, Philippe See Bosch, S.; et al., (81m:32016)

30G10 Nonstandard function theory [See also 03H05.]

secondary classifications:

- Berglez, Peter Über eine partielle Differentialgleichung, die bei der Behandlung gewisser inhomogener Differentialgleichungen von Bedeutung ist. (English summary) (81m:35029)

30G15 Topological function theory

- Bondar', A. V. Partially open mappings of planar domains. (Russian) 81d:30077

secondary classifications:

- Mond, David On the definition of the first homology group in the open sets of the plane. (Spanish) (81j:30001)

30G20 Generalizations of Bers or Vekua type (pseudanalytic, p -analytic, etc.)

- Bikčantaev, I. A. Polyanalytic functions on Riemann surfaces. (Russian) 81m:30051
 Bitonov, S. M. Integrals with Cauchy kernels for generalized analytic functions. (Russian. English summary) 81d:30078
 Blev, N. K. Analytic functions that are generalized in the sense of I. N. Vekua, and boundary value problems in fractional spaces. (Russian) 81j:30083
 Boltaev, K. S. See Radžabov, N., 81c:30088
 Kapsilvii, O. O. (with Kopistira, M. P.) Solution of the problem on the complex x -analytic potential of a system of circular and spherical discs. (Russian. English summary) 81b:30087
 Kazidžanova, D. A general problem of conjugation for a generalized Cauchy-Riemann system with a degenerate matrix of a boundary condition. (Russian. Tajiki summary) 81i:30083
 Kopistira, M. P. See Kapsilvii, O. O., 81b:30087
 Obolavil', E. A generalized Cauchy-Riemann system on multidimensional Euclidean space. (Russian) 81j:30084

- Radiabov, N. (with Boltaev, K. S.) A representation of a manifold of solutions of a generalized Cauchy-Riemann system with a singular line. (Russian) **81c:30088**
- Turunov, M. Pseudoanalytic functions of a discrete complex argument. II. (Russian) **81j:30085**
- Weisel, Jutta Numerische Ermittlung quasikonformer Abbildungen mit finiten Elementen. (English summary) **81j:30086**

secondary classifications:

- Goldschmidt, Bernd Funktionentheoretische Eigenschaften verallgemeinerter analytischer Vektoren. (81c:35022)
- Huang Din' Zung Some applications of p -analytic functions in the theory of filtration in nonhomogeneous soil. (Russian) (81b:76060)
- Mihailov, L. G. Compatibility conditions and manifolds of solutions to a generalized Cauchy-Riemann system with several variables. (Russian) (81c:32005)
- Rodin, Ju. L. (with Turakulov, A.) The Riemann boundary value problem for generalized analytic functions with singular coefficients on a compact Riemann surface. (Russian. Georgian and English summaries) (81g:30055)
- Turakulov, A. See Rodin, Ju. L., (81g:30055)
- Tutschke, Wolfgang Komplexe Methoden bei nichtlinearen Differentialgleichungssystemen. (81h:35005)

30G25 Discrete analytic functions

- Mugler, Dale H. The discrete Paley-Wiener theorem. **81m:30052**

secondary classifications:

- Andreassi, Gabriele On a finite algebra. (Italian. English summary) (81k:30069)
- Hurman, C. J. Discrete geometric function theory. II. (81b:39003)

30G30 Other generalizations of analytic functions (including abstract-valued functions)

- Arnaudova, E. Ja. Almost complex mappings of the plane. (Bulgarian. Russian and English summaries) **81j:30087**
- Dragulidze, O. P. Geometric definition of functions of the Fedorov-Smirnov class. (Russian. Georgian and English summaries) **81c:30056**
- M. Riesz's L_p -inequality for the Fedorov-Smirnov class of functions. (Russian. Georgian and English summaries) **81c:30057**
- Fedčina, I. P. The Schur problem for vector-valued functions. (Russian) **81h:30051**
- Kocić, Vlahko Lj. Generalizations of a problem of D. S. Mitinović. **81j:30088**
- Žil'cova, N. D. A boundary value problem for a holomorphic vector. (Russian) **81c:30058**

secondary classifications:

- Bezpal'cev, O. A. A matrix analogue of a theorem of Nevanlinna. (Russian) (81a:47037)
- Krein, S. G. (with Nikolova, L. I.) Holomorphic functions in a family of Banach spaces, interpolation. (Russian) (81j:46112)
- Nikolova, L. I. See Krein, S. G., (81j:46112)
- Rasulov, K. M. On the solution of some boundary value problems of Riemann type for polyanalytic functions. (Russian) (81h:30047)

30G35 Functions of hypercomplex variables and generalized variables

- Andreassi, Gabriele On a finite algebra. (Italian. English summary) **81k:30069**
- Brackx, F. See Delanghe, Richard, **81a:30026**
- Delanghe, Richard (with Brackx, F.) Regular solutions at infinity of a generalized Cauchy-Riemann operator. **81a:30026**
- Slimac, O. Expansion of certain holomorphic functions (H) in increasing powers of a given polynomial. (Romanian. German summary) **81m:30053**
- Sprössig, Wolfgang Taylor- und Laurententwicklungen räumlich verallgemeinerter analytischer Funktionen. **81h:30052**

secondary classifications:

- Brackx, F. See Delanghe, Richard, (81j:46029a) and Delanghe, Richard, (81j:46032)
- Delanghe, Richard (with Brackx, F.) Hypercomplex function theory and Hilbert modules with reproducing kernel. (81j:46032)
- (with Sommen, F.) Hypercomplex function theory and representation of distributions. (81j:46029b)
- (with Brackx, F.) Duality in hypercomplex function theory. (81j:46029a)
- Gonzalez, M. O. The n -dimensional Cauchy-Riemann equations. (81a:53012)
- Hile, Gerald N. Function theory for a class of elliptic systems in the plane. (81c:35023)
- Porru, Giovanni Quasiconformal mappings in normed spaces. (81g:30031)
- Roscalet, Marcel N. Algèbres avec radical, associées aux systèmes d'équations aux dérivées partielles, itérées. (Romanian summary) (81f:35019)
- Sommen, F. See Delanghe, Richard, (81j:46029b)

30G99 None of the above, but in this section

- Bernard, A. (with Campbell, E. A.; Davie, A. M.) Brownian motion and generalized analytic and inner functions. (French summary) **81b:30088**
- Campbell, E. A. See Bernard, A.; et al., **81b:30088**
- Davie, A. M. See Bernard, A.; et al., **81b:30088**
- Sprössig, Wolfgang Stetigkeitseigenschaften des Nablaoperators. **81j:30089**

secondary classifications:

- Kruglikov, V. I. (with Paikov, V. I.) Continuous mappings with a finite Dirichlet integral. (Russian) (81h:30023)

- Paikov, V. I. See Kruglikov, V. I., (81h:30023)
- Trent, Tavan T. $H^2(\mu)$ spaces and bounded point evaluations. (81j:30054)

30H05 Spaces and algebras of analytic functions [See also 32E25, 46Exx, 46J15.]

- Alling, Norman L. Global ideal theory of meromorphic function fields. **81b:30089**
- Apresjan, S. A. Localization of ideals and asymptotic uniqueness theorems for functions with restrictions on the growth. (Russian) **81d:30079a**
- Letter to the editors: "Localization of ideals and asymptotic uniqueness theorems for functions with restrictions on the growth". (Russian) **81d:30079b**
- Axler, Sheldon (with Berg, I. David; Jewell, Nicholas; Shields, Allen L.) Approximation by compact operators and the space $H^\infty + C$. **81h:30053**
- Berg, I. David See Axler, Sheldon; et al., **81h:30053**
- Jewell, Nicholas See Axler, Sheldon; et al., **81h:30053**
- Korenblum, Boris Analytic functions of unbounded characteristic and Beurling algebras. **81b:30090**
- Korobinski, Ju. F. A functional equation. I. (Russian) **81j:30090**
- Krasičkov-Ternovskii, I. F. Spectral synthesis on systems of unbounded convex domains. (Russian) **81j:30091**
- Nakamura, Akihiro (with Ohya, Fumimasa; Watanabe, Hiroshi) On some properties of functions in weighted Bergman spaces. **81h:30084**
- Ohya, Fumimasa See Nakamura, Akihiro; et al., **81h:30084**
- Shapiro, Joel H. Zeros of random functions in Bergman spaces. (French summary) **81h:30054**
- Shields, Allen L. See Axler, Sheldon; et al., **81h:30053**
- Stegenga, David A. Multipliers of the Dirichlet space. **81a:30027**
- Tkačenko, V. A. The transformation operator in spaces of entire functions. (Russian) **81a:30028**
- Verbitskii, I. É. Multipliers of spaces \mathcal{H}_p^2 . (Russian) **81m:30054**
- Watanabe, Hiroshi See Nakamura, Akihiro; et al., **81h:30084**

secondary classifications:

- Apresjan, S. A. All closed ideals of the algebra $A_p(\mathbb{G})$ are divisorial. (Russian. English summary) (81b:46071)
- Bierstedt, Klaus-Dieter A remark on vector-valued approximation on compact sets, approximation on product sets, and the approximation property. (81h:46019)
- Brennan, James E. Point evaluations, invariant subspaces and approximation in the mean by polynomials. (81h:46026)
- Donoghue, William F., Jr. Monotone operator functions on arbitrary sets. (81g:47025)
- Gamelin, T. W. ★ Uniform algebras and Jensen measures. (81a:46058)
- Havin, V. P. See Vinogradov, S. A., (81h:30048)
- Krasičkov-Ternovskii, I. F. Local description of closed ideals and submodules of analytic functions of a single variable. II. (Russian) (81g:46073)
- Luecking, Daniel H. The compact Hankel operators form an \mathcal{M} -ideal in the space of Hankel operators. (81h:46057)
- von Renteln, Michael Ideals generated by singular inner functions. (81j:30052)
- Senčkin, V. N. Subharmonic functions and the analytic structure in the space of maximal ideals of a uniform algebra. (Russian) (81h:46077)
- Tkačenko, V. A. Spectral expansions in spaces of analytic functionals. (Russian) (81g:47021)
- Tonev, Toma V. The algebra of bounded hyperanalytic functions on the big disc has no corona. (81h:46058)
- Vinogradov, S. A. (with Havin, V. P.) Letter to the editors: "Free interpolation in H^∞ and in certain other classes of functions. I" [Zap. Nauchn. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI) 47 (1974), 15-54; MR 52 #14307]. (Russian) (81h:30048)
- Wang, James Li Ming A note on modulus of approximate continuity on $R(X)$. (81a:46063)
- Wermer, John Subalgebras of the disk algebra. (81e:46035)

31-XX POTENTIAL THEORY (For probabilistic potential theory, see 60J45.)

31-01 Elementary exposition, textbooks

- (Vavilov, V. V.) See Wermer, John, **81f:31001**
- Wermer, John ★ Теория потенциала. (Russian) [Potential theory] **81f:31001**

31-02 Advanced exposition (research surveys, monographs, etc.)

- Arsove, Maynard (with Leutwiler, Heinz) Algebraic potential theory. **81f:31002**
- Fuglede, Bent Harmonic morphisms. **81b:31001**
- Leutwiler, Heinz See Arsove, Maynard, **81f:31002**

31-03 Historical (must also be assigned at least one classification number from Section 01)

- Gårding, Lars The Dirichlet problem. **81d:31001**

secondary classifications:

- de Figueiredo, Djairo Guedes The Dirichlet problem. (Portuguese) (81a:01021)

31-04 Explicit machine computation and programs (not the theory of computation or programming)

31-06 Proceedings, conferences, etc.

- (Berg, Christian) See Potential theory. **81i:31001**
- (Forst, Gunnar) See Potential theory. **81i:31001**

(Fuglede, Bent) See Potential theory, 81i:31001

(Hirsch, Francis) See Seminar: Potential theory, 81i:31002

(Mokobodski, Gabriel) See Seminar: Potential theory, 81i:31002

Colloquium:

Potential Theory ★Potential theory, Copenhagen 1979. 81i:31001

Copenhagen ★Potential theory, Copenhagen 1979. 81i:31001

Potential theory ★Potential theory, Copenhagen 1979. 81i:31001

★Séminaire de Théorie du Potentiel, Paris. No. 5. (French) [Seminar on Potential Theory, Paris. No. 5] 81i:31002

Seminar:

Potential theory ★Séminaire de Théorie du Potentiel, Paris. No. 5. (French) [Seminar on Potential Theory, Paris. No. 5] 81i:31002

31Axx Two-dimensional theory

31A05 Harmonic, subharmonic, superharmonic functions

Aksent'ev, L. A. (with Rešetnikov, Ju. A.) Monotonicity of mean values of subharmonic functions in an annulus. (Russian) 81i:31003

Arizanykh, I. S. (with Asadova, M. Ju.) Addition formulas for the powers of ordered harmonic polynomials. (Russian) 81i:31001

Asadova, M. Ju. See Arizanykh, I. S., 81i:31001

Azaria, V. S. Asymptotic behavior of subharmonic functions of finite order. (Russian) 81i:31001

Berberjan, S. L. Exclusive sets of subharmonic functions. (Russian. Armenian summary) 81i:31001

Bergelaja, L. I. Subharmonic functions of a complex variable that are bounded on a sequence of points of the real axis. I. (Russian) 81i:31002a

Subharmonic functions of a complex variable that are bounded on a sequence of points of the real axis. II. (Russian) 81i:31002b

Essén, Matts Slowly growing subharmonic function. II. 81g:31001

Fenton, P. C. Regularity of certain small subharmonic functions. 81i:31003

Fleishman, Bernard A. (with Mahar, Thomas J.) A minimum principle for superharmonic functions subject to interface conditions. 81i:31002

Fridman, O. N. Lower bounds of subharmonic functions. (Russian) 81i:31004

Hayman, W. K. Approximation von ebenen harmonischen Funktionen durch solche mit Wachstumsbeschränkung. 81g:31002

Mahar, Thomas J. See Fleishman, Bernard A., 81i:31002

Nørstad, Folke Convexity of means and growth of certain subharmonic functions. 81i:31003

Rešetnikov, Ju. A. See Aksent'ev, L. A., 81i:31003

Silvastava, Girja S. The mean values of a subharmonic function. 81i:31002

secondary classifications:

Aksent'ev, L. A. (with Pancević, E. L.) Estimates for functions that are harmonic in circular multiply connected domains. (Russian) (81i:30070)

Bernstein, Albert, II How the ϵ -function solves extremal problems. (81i:30028)

Bagdasarian, D. T. Classes of harmonic and holomorphic functions in a multiply connected domain and their parametric representations. (Russian. Armenian summary) (81i:30074)

Gauthier, P. M. (with Hengartner, Walter) Uniform harmonic approximation on unbounded sets. (81a:41031)

Glaser, Moses (with Nakai, Mitsuru) Inextremization and boundedness on open Riemann surfaces. (81c:30081)

Hengartner, Walter See Gauthier, P. M., (81a:41031)

Kenig, Carlos E. Weighted H^p spaces on Lipschitz domains. (81d:30060)

Nakai, Mitsuru See Glaser, Moses, (81c:30081)

Nguyen-Xuan-Loc Sur la théorie des fonctions finement holomorphes. II. (81h:60099)

Pacvitić, E. L. See Aksent'ev, L. A., (81i:30070)

Zahradnik, George Ireneus Plane harmonic functions in the presence of a surface layer of arbitrary stiffness. (81c:73009)

31A10 Integral representations

Nakai, Mitsuru Picard principle for finite densities. 81j:31001

Tada, Toshiyama On a criterion of Picard principle for rotation-free densities. 81i:31005

31A15 Potentials and capacity, harmonic measure, extremal length [See also 30C85.]

Acker, Andrew Free boundary optimization—a constructive iterative method. (German summary) 81i:31006

Dunkel, Thad, Jr. On moduli of continuity of analytic and harmonic functions. 81i:31003

Fryant, Allan J. Growth and complete sequences of generalized bi-axially symmetric potentials. 81i:31003

Gabov, S. A. (with Ševcov, P. V.) Angular potential on curves of bounded rotation. (Russian) 81i:31002

See also Vahček, P. N., 81i:31001

Jackson, Howard L. Some exceptional sets in potential theory. 81i:31004

Lawrynowicz, Julian Über einige Variationsprinzipien der komplexen Analysis. 81i:31004

Modica, Luciano (with Mortola, Stefano) Construction of a singular elliptic-harmonic measure. 81m:31001

Mortola, Stefano See Modica, Luciano, 81m:31001

Ševcov, P. V. See Gabov, S. A., 81i:31002

Tamrazov, P. M. Condenser capacities and A. A. Gončar's extremal problem. (Russian) 81d:31002a

A. A. Gončar's extremal problem and condenser capacities. (Russian)

81d:31002b

Vahček, P. N. (with Gabov, S. A.) Angular potential for the solution of an elliptic equation with variable coefficients. (Russian) 81a:31001

secondary classifications:

Essén, Matts (with Shea, Daniel F.) On some questions of uniqueness in the theory of symmetrization. (81d:30002)

Evgrafov, M. A. ★Асимптотические оценки и целые функции. (Russian) [Asymptotic estimates and entire functions] (81b:30048)

Hedberg, Lars Inge Capacities and approximation by analytic and harmonic functions. (81i:30042)

Hersch, Joseph On the torsion function, Green's function and conformal radius: an isoperimetric inequality of Pólya and Szegő, some extensions and applications. (81k:49034)

Hueber, Hermann Harmonic measures can behave badly under small perturbations of the domain. (81i:30025)

Ikoma, Kazuo A modification of Teichmüller's module theorem and its application to a distortion problem in n -space. (81m:30019)

Kapitvili, O. O. (with Kopistira, M. P.) Solution of the problem on the complex x -analytic potential of a system of circular and spherical discs. (Russian. English summary) (81b:30087)

Kaufman, Robert P. (with Wu, Jang Mei G.) Singularity of parabolic measures. (81c:35055)

Kopistira, M. P. See Kapitvili, O. O., (81b:30087)

Shea, Daniel F. See Essén, Matts, (81d:30002)

Wu, Jang Mei G. See Kaufman, Robert P., (81c:35055)

31A20 Boundary behavior (theorems of Fatou type, etc.)

Ogawa, Wataru Boundary behavior of Dirichlet solutions at regular boundary points. 81i:31001

Osada, Masayuki A remark on thin sets in an open unit disk. 81i:31005

secondary classifications:

Berberjan, S. L. Exclusive sets of subharmonic functions. (Russian. Armenian summary) (81i:31001)

31A25 Boundary value and inverse problems

Arvadiev, R. G. A special case of the Schwarz problem and some of its applications. (Russian) 81j:31002

Diaz, J. B. (with Ram, R. B.) Uniqueness of Dirichlet, Neumann and mixed boundary value problems for Laplace's and Poisson's equations for a rectangle. 81g:31003

Freidkin, S. A. Mixed problem of potential theory for a plane with an infinite number of sections. (Italian summary) 81i:31002

Gabov, S. A. Applications of the angular potentials; a representation of harmonic functions. (Russian. English summary) 81i:31004

Gorbaičuk, V. I. Conditions for the stable analytic continuation of a harmonic function. (Russian) 81i:31003

Homentcovski, Dorel On the mixed boundary value problem for harmonic functions in plane domains. (French summary) 81i:31004

Isakov, V. M. Existence of solutions of an inverse problem of potential theory. (Russian) 81i:31006

Jodeit, Max, Jr. Applications of A. P. Calderón's Cauchy integral theorem. 81g:31004

Koblov, U. E. A problem of analytic continuation for the Laplace equation in a half-plane. (Russian) 81a:31002

Mihallov, L. G. Problems of conjugation of harmonic functions. (Russian. Tajiki summary) 81i:31007

Ram, R. B. See Diaz, J. B., 81g:31003

Serikbaev, A. U. An inverse mixed problem for a simple layer logarithmic potential. (Russian) 81i:31007

Tepper, David E. (with Wildenberg, Gerald) Some infinite free boundary problems. 81i:31005

Vlasov, V. I. Solution to the Dirichlet problem using Fourier-series expansion. (Russian) 81j:31003

Wegmann, Rudolf A construction method for a free boundary value problem of potential theory. 81i:31005

Wildenberg, Gerald See Tepper, David E., 81i:31005

v. Wolfersdorf, L. (with Wolska-Bochenek, J.) A conjugacy problem of potential theory arising in calculus of variations. 81i:31003

Wolska-Bochenek, J. See v. Wolfersdorf, L., 81i:31003

secondary classifications:

Acker, Andrew Free boundary optimization—a constructive iterative method. (German summary) (81i:31006)

Cade, R. The integral equation solution of two-dimensional electrostatic problems involving circular cylinders. (81e:78018)

Campi, Stefano On the exterior Dirichlet problem for linear elliptic equations in the plane. (81a:35024)

Garland, G. D. The contributions of Carl Friedrich Gauss to geomagnetism. (French summary) (81e:01021)

(Gauß, Carl Friedrich) See Garland, G. D., (81e:01021)

Losievskaja, T. V. On the singularities of solutions of the Dirichlet problem for an elliptic equation with discontinuous coefficients. (Russian) (81h:35013)

Modica, Luciano (with Mortola, Stefano) Some entire solutions in the plane of nonlinear Poisson equations. (Italian summary) (81i:35036)

Mortola, Stefano See Modica, Luciano, (81i:35036)

31A30 Biharmonic, polyharmonic functions and equations, Poisson's equation

- Ahmedov, Z. A. See Atahodiev, M. A., 81f:31008
 Atahodiev, M. A. (with Ahmedov, Z. A.) A problem for the biharmonic equation. (Russian) 81f:31008
 Kawamura, Michihiko A remark on inhomogeneity of Picard principle. 81g:31005
 Kleiza, Jonas See Kleiza, Vyntas, 81k:31008
 Kleiza, Vyntas (with Kleiza, Jonas) A boundary value problem for the biharmonic function on the plane. (Russian. Lithuanian and English summaries) 81k:31008
 Nakai, Mitsuru (with Sario, Leo) Square integrable harmonic functions on plane regions. 81b:31004
 Sario, Leo See Nakai, Mitsuru, 81b:31004

secondary classifications:

- Nowinski, J. L. Bilateral bounds for the solution of a generalized biharmonic boundary value problem. (81j:73061)

31A35 Connections with differential equations

- Narkun, Z. M. Addition theorems for "outer" harmonic functions in elliptic coordinates. (Russian) 81c:31006
 Suto, Takeyoshi Comparison theorems for Banach spaces of solutions of $\Delta u = Pu$ on Riemann surfaces. 81c:31007

secondary classifications:

- Imai, Hideo On singular indices of rotation free densities. (81b:30080)
 Janiec, Barbara Some properties of generalized thermal potential and its application to the solution of a boundary value problem for equations of parabolic type. (Polish. Russian and English summaries) (81f:35081)
 Levy, Hans On conjugate solutions of certain partial differential equations. (81j:35036)
 Nakai, Mitsuru Picard principle for finite densities. (81j:31001)
 Tada, Toshimasa On a criterion of Picard principle for rotation-free densities. (81k:31005)

31A99 None of the above, but in this section

- Gauthier, P. M. Approximating, majorizing, and extending functions defined on unbounded sets. 81f:31005
 Janušonkas, A. I. A property of harmonic mappings connected with the Neumann function. (Russian) 81c:31008
 McCoy, Peter A. Analytical properties of generalized biaxially symmetric potentials. 81c:31009
 Nakai, Mitsuru Strong Picard principle. 81k:31009

secondary classifications:

- Antonjuk, P. É. See Dzjadik, V. K.; et al., (81c:30068)
 Dzjadik, V. K. (with Šval, O. I.; Antonjuk, P. É.) Approximation of some kernels. (Russian) (81c:30068)
 Maitani, Fumio Boundary functions and extremal problems for Hardy classes. (81d:30062)
 Šval, O. I. See Dzjadik, V. K.; et al., (81c:30068)

31Bxx Higher-dimensional theory

31B05 Harmonic, subharmonic, superharmonic functions

- Armitage, D. H. A theorem on entire harmonic functions of zero exponential type. 81d:31003
 On the behaviour near the origin of a superharmonic function in a half-ball. 81d:31004
 On hyperplane mean values of subharmonic functions. 81h:31006
 Beleckaja, L. Ju. (with Landkof, N. S.) Some estimates of the Harnack metric. (Russian) 81d:31005
 Cámara-García, G. Minimum growth rate of subharmonic functions. (Spanish summary) 81f:31006
 Eremenko, A. É. An inequality for subharmonic functions. (Russian) 81b:31005
 The growth of subharmonic functions on asymptotic curves. (Russian) 81d:31006
 Essén, Mats (with Jackson, Howard L.) On the covering properties of certain exceptional sets in a half-space. 81h:31007
 Fryant, Allan J. (with Marden, Morris) Green's function with ring pole and applications to interpolation. 81k:31010
 Fugard, T. B. Growth of entire harmonic functions in \mathbb{R}^n , $n \geq 2$. 81f:31007
 Hwang, Jun Shung (with Jackson, Howard L.) On the relationship between ordinary thin sets and full-thin sets. 81j:31004
 Jackson, Howard L. See Essén, Mats, 81h:31007 and Hwang, Jun Shung, 81j:31004
 Janušonkas, A. I. The basic system of differential equations for the theory of harmonic mappings of three-dimensional domains. (Russian) (See 80c:30023)
 Landkof, N. S. See Beleckaja, L. Ju., 81d:31005
 Marden, Morris See Fryant, Allan J., 81k:31010
 Netuka, I. (with Veselý, J.) Regions of harmonicity. 81f:31008
 Rjabogin, A. K. Integral inequalities for conjugate harmonic functions of several variables. (Russian) 81h:31008
 Schenpp, Walter Interpolation zentraler harmonischer Funktionen. 81j:31005
 Veselý, J. See Netuka, I., 81f:31008

secondary classifications:

- Bernard, A. (with Campbell, E. A.; Davie, A. M.) Brownian motion and generalized analytic and inner functions. (French summary) (81b:30088)
 Campbell, E. A. See Bernard, A.; et al., (81b:30088)
 Davie, A. M. See Bernard, A.; et al., (81b:30088)
 Eells, James Examples of harmonic and holomorphic maps. (81j:58035)
 Pöschel, R. K. Basic formula of a subharmonic function representation in the general case of arbitrary integral order inside a domain. (Russian) (81a:31005)
 Stein, Elias M. A variant of the area integral. (French summary) (81a:31006)
 Smilkin, Andrej An example concerning the topological character of the zero-set of a harmonic function. (81c:50033)

31B10 Integral representations

- Itô, Masayuki Positive eigen elements for an infinitesimal generator of a diffusion semigroup and their integral representations. 81m:31002
 Jerison, David S. (with Kenig, Carlos E.) An identity with applications to harmonic measure. 81f:31009
 Kenig, Carlos E. See Jerison, David S., 81f:31009
 Schmidt, Margot Über stetige Funktionen, die sich als Potential elliptischer Gleichungen 2. Ordnung darstellen lassen. 81g:31006

secondary classifications:

- Folland, G. B. Lipschitz classes and Poisson integrals on stratified groups. (81e:43019)

31B15 Potentials and capacities, extremal length

- Adams, David R. Quasi-additivity and sets of finite L^p -capacity. 81j:31006
 Bandle, Catherine A remark on a paper: "On some maximum principles involving harmonic functions and their derivatives" [SIAM J. Math. Anal. 10 (1979), no. 1, 96-104; MR 81f:31011a]. 81f:31011b
 Borzymowski, A. (with Olaszewski, P.) Some properties of generalized thermal potentials in a noncylindrical domain. 81f:31010
 Buttu, A. On a generalization of the conformal capacity of a ring. (Italian. English summary) 81f:31011
 Caraman, Petru About capacities and moduli in infinite-dimensional spaces. 81c:31010
 Le p -module et la p -capacité du cylindre. (English summary) 81h:31009
 Čebanov, V. I. Approximation properties of some classes of vector fields. (Russian. English summary) 81f:31009
 Choquet, Gustave Noyaux de convolution à croissance exponentielle sur \mathbb{R}^n . (English summary) 81f:31010
 Dahlberg, Björn E. J. L^p -estimates for Green potentials in Lipschitz domains. 81d:31007
 Hansson, Kurt Imbedding theorems of Sobolev type in potential theory. 81j:31007
 Kufarev, B. P. (with Sokolov, B. V.) Boundary correspondence in mappings of domains from \mathbb{R}^n . (Russian) 81h:31010
 Kurokawa, Takahide (with Mizuta, Yoshihiro) On the order at infinity of Riesz potentials. 81h:31011
 Fine continuity and quasicontinuity of nonlinear potentials. 81f:31011
 Lavrenjuk, S. P. Stability of the solution of an inverse problem for a simple layer metaharmonic potential. (Ukrainian. Russian summary) 81b:31006
 Martio, Olli Capacity and measure densities. 81h:31007
 Mizuta, Yoshihiro See Kurokawa, Takahide, 81h:31011
 Olaszewski, P. See Borzymowski, A., 81f:31010
 Payne, L. E. (with Philippin, Gérard A.) On some maximum principles involving harmonic functions and their derivatives. 81f:31011a
 See also Bandle, Catherine, 81f:31011b
 Philippin, Gérard A. See Payne, L. E., 81f:31011a and Bandle, Catherine, 81f:31011b
 Rippin, P. J. Semifine limits of Green potentials. 81d:31008
 Sokolov, B. V. See Kufarev, B. P., 81h:31010
 Sytev, A. V. Moduli of families of curves and surfaces passing through sets. (Russian) (See 80c:30023)
 Wachnicki, Eugeniusz On the quasipotential for the circle and the ball. 81f:31012
 Yamamoto, Hiromichi On null sets for extremal distances of order 2 and harmonic functions. 81f:31012

secondary classifications:

- Andreasen, Casaca, Cabiria On the Grötzsch and Rengel inequalities. (81c:30028)
 Bakker, N. Ju. (with Tarasov, R. P.) A problem of transformation of three-dimensional potential fields. (Russian) (81k:65105)
 Billi, V. I. Distortion of distances under conformal mappings and direct theorems of constructive function theory. (Russian) (81c:30067)
 Caraman, Petru p -capacity and conformal capacity in infinite-dimensional spaces. (81j:28024)
 Chung, Kai Lai (with Rao, Murali) Sur la théorie du potentiel avec la fonctionnelle de Feynman-Kac. (English summary) (81c:60085)
 Harrell, Evans M. Double wells. (81j:81010)
 Jackson, Howard L. Some exceptional sets in potential theory. (81f:31004)
 Mar'ja, V. G. ★ Einbettungssätze für Sobolewsche Räume. Teil I. (German) [Imbedding theorems for Sobolev spaces. Part I] (81j:46054)
 (Nagel, Jürgen) See Mar'ja, V. G., (81j:46054)
 Neri, Umberto Anisotropic Sobolev theorems. (Italian summary) (81c:46025)
 Rao, Murali See Chung, Kai Lai, (81c:60085)
 Samko, S. G. On the description of the image $I^n(L_p)$ of Riesz potentials. (Russian. Armenian and English summaries) (81d:46029)
 Shapiro, Victor L. Pressure, capacity, and the Navier-Stokes equations. (81k:35136)
 Tarasov, R. P. See Bakker, N. Ju., (81k:65105)
 Zjur'kov, V. M. Limit sets of mappings of class BL^p and bicompact Royden extensions. (Russian) (81c:30031)

31B20 Boundary value and inverse problems

- Anger, Gottfried Ein inverses Problem der Wärmeleitungsgleichung. I. **81c:31004**
 Celebi, A. Okay A Poisson-type kernel and its properties. (Turkish summary) **81d:31009**
 Dahlberg, Björn E. J. On the Poisson integral for Lipschitz and C^1 -domains. **81g:31007**
 Köhnel, Klaus Eine inverse Aufgabe für Wärmepotentiale. **81h:31012**
 Kuram, Ūkū A new criterion of Dirichlet regularity via the quasiboundedness of the fundamental superharmonic function. **81a:31003**
 Löffler, Heinrich On the analytic theory of pseudoparabolic systems. **81b:31008**
 Markushevich, L. A. A generalized Robin problem. (Russian) **81d:31010**
 Ohtsuka, M. V. A nonlinear multiply connected problem with a free boundary. (Russian. English summary) **81i:31013**
 Valdiković, P. N. The uniqueness of some exterior inverse problems of metaharmonic potential. (Russian) **81c:31011**
 Wolfe, Peter An integral operator arising in potential theory. **81i:31014**

secondary classifications:

- Anger, Gottfried Inverse problems in differential equations. (**81j:35105**)
 Fryant, Allan J. (with Marden, Morris) Green's function with ring pole and applications to interpolation. (**81k:31010**)
 Gerdes, W. Potentialtheoretische Behandlung eines dreidimensionalen Randwertproblems für den Operator $\text{rot} - \text{ia}$. (**81j:35097**)
 Marden, Morris See Fryant, Allan J., (**81k:31010**)
 Sank, E. M. Stability of the jump problem for a holomorphic vector. (Russian) (**81k:35041**)

31B25 Boundary behavior

- Ancona, Alano Une propriété de la compactification de Martin d'un domaine euclidien. (English summary) **81f:31013**
 Dirudomni, Jean Une variante de l'épave de Lebesgue. **81c:31012**
 Dragomir, O. P. Plessner and Meier theorems for harmonic functions of the Fedorov-Smirnov class. (Russian) **81j:31008**
 Dirbaian, A. E. Weight inequalities for the Littlewood-Paley function in domains with conic points. (Russian. English summary) **81d:31011**
 Eremenko, A. E. Asymptotic curves of subharmonic functions in the space \mathbb{R}^n . (Russian. Armenian and English summaries) **81c:31012**
 Kapanadze, D. V. Harmonic functions and maximal operators. (Russian) **81c:31013**
 Kersten, Heinrich Grenz- und Sprungrelationen für Potentiale mit quadratsummierbarer Flächenbelegung. **81f:31015**
 Mizuta, Yoshihiro Existence of various boundary limits of Beppo Levi functions of higher order. **81d:31013**
 Wu, Jiang Mei G. Boundary limits of Green's potentials along curves. II. Lipschitz domains. **81i:31016**

secondary classifications:

- Ancona, Alano Théorème de Fatou et frontière de Martin pour une classe d'opérateurs elliptiques dans un demi-espace. (English summary) (**81l:31021**)
 Debiard, Amédée Comparaison des espaces H^p géométrique et probabilistes au-dessus de l'espace hermitien hyperbolique. (English summary) (**81f:32044**)
 Mizuta, Yoshihiro Existence of nontangential limits of solutions of nonlinear Laplace equation. (**81f:35045**)
 Netuka, I. (with Vesely, J.) Regions of harmonicity. (**81f:31008**)
 Rippon, P. J. The boundary cluster sets of subharmonic function. (**81h:30036**)
 Vesely, J. See Netuka, I., (**81f:31008**)

31B30 Biharmonic and polyharmonic equations and functions

- Afilov, P. I. The uniqueness of series with respect to eigenfunctions of the biharmonic operator. (Russian) **81m:31003**
 Bai Huy Qui See Mizuta, Yoshihiro, **81h:31013**
 Imai, Hideo Bounded Dirichlet finite and L^p finite biharmonic functions on Poincaré ball. **81h:31009**
 Mizuta, Yoshihiro (with Bui Huy Qui) On the existence of nontangential limits of polyharmonic functions. **81h:31013**
 Munna, Harald Ein Vergleich zweier Nullmengensysteme bei der polyharmonischen Gleichung. **81d:31014**
 Muresan, Anton S. Some properties of solutions of equation $\Delta^2 u = 0$. **81g:31008**
 Muskhelishvili, J. On the p -harmonic boundary problem of Riquier's type in n -dimensional half-space. **81b:31010**
 Peilin, B. K. A basic formula for the representation of a subharmonic function in the classical case of an arbitrary integral order. (Russian) **81a:31004**
 Basic formula of a subharmonic function representation in the general case of arbitrary integral order inside a domain. (Russian) **81a:31005**
 Smyrnelis, Emmanouel P. Polarité et effilement dans les espaces biharmoniques. **81a:31006**
 Sur les fonctions hyperharmoniques d'ordre 2. **81a:31007**
 Stein, Elias M. A variant of the area integral. (French summary) **81a:31008**
 Wang, Cecilia Y. A biharmonic kernel function. **81b:31011**

secondary classifications:

- Fragele, A. Perturbation of a polyharmonic operator by potentials with small supports. (Russian) (**81g:35046**)
 Nickel, Paul A. A biharmonic normal operator. (**81h:31015**)
 Tavhildze, I. N. Asymptotic behavior of solutions of a polyharmonic equation in the neighborhood of points of the boundary and at infinity. (Russian) (**81c:35012**)

31B35 Connections with differential equations

- Charrier, Pierre Système complémentaire pour un problème unilatéral d'évolution: application au problème de temps d'arrêt. **81i:31017**
 Doet, Miroslav The heat and adjoint heat potentials. (Czech summary) **81i:31018**
 Král, Josef (with Mrzena, Stanislav) Heat sources and heat potentials. (Czech summary) **81i:31019**
 McCoy, Peter A. A mean boundary value problem for a generalized axisymmetric potential on doubly connected regions. **81k:31012**
 Mrzena, Stanislav See Král, Josef, **81i:31019**

secondary classifications:

- Borzymowski, A. (with Olaszewski, P.) Some properties of generalized thermal potentials in a noncylindrical domain. (**81f:31010**)
 Celebi, A. Okay A Poisson-type kernel and its properties. (Turkish summary) (**81d:31009**)
 Goyal, Vinod B. (with Schaefer, Philip W.) Liouville theorems for a class of fourth-order elliptic equations. (**81g:35027**)
 Kibirev, V. V. On the oblique derivative problem with linear coefficients for harmonic functions. (Russian) (**81d:35037**)
 Kolodii, I. M. A theorem of Liouville type for generalized solutions of degenerate quasilinear elliptic equations. (Ukrainian. Russian summary) (**81g:35040**)
 Masada, Fumi-Yuki Differential equations associated with harmonic spaces. (**81b:31015**)
 Markushevich, L. A. The generalized Robin problem and a variational method of solving it. (Russian) (**81k:35047**)
 Olaszewski, P. See Borzymowski, A., (**81f:31010**)
 Schaefer, Philip W. See Goyal, Vinod B., (**81g:35027**)
 Wildenhain, Günther Ergebnisse und offene Probleme zur Potentialtheorie elliptischer Differentialgleichungen beliebiger Ordnung. (**81k:35057**)
 Zeddo, Ludwika On certain properties of the volume Green potential for the iterated Helmholtz equation and for the octant E_3^+ . (**81k:35020**)

31B99 None of the above, but in this section

- Kapanadze, D. V. Riesz potentials and α -harmonic functions. (Russian. Georgian and English summaries) **81i:31020**
 Oksendal, Bernt A Wiener test for integrals of Brownian motion and the existence of smooth curves in nowhere dense sets. **81d:31015**

secondary classifications:

- Cheng, Shiu Yuen Liouville theorem for harmonic maps. (**81i:58021**)
 Hughes, Rhonda J. On the logarithm of an abstract potential operator. (**81m:47057**)
 Krämer, Manfred Some remarks suggesting an interesting theory of harmonic functions on $SU(2n+1)/Sp(n)$ and $SO(2n+1)/U(n)$. (**81c:22024**)
 Watson, N. A. Convexity of mean values of nonnegative subtemperatures. (**81c:35059**)

31Cxx Other generalizations

31C05 Harmonic, subharmonic, superharmonic functions

- Goussone, Hassan Prolongement surharmonique dans un espace harmonique. Notion de flux. **81m:31004**
 Hermann, Peter Eine Verallgemeinerung des Poincaréschen Lemmas und die Theorie der harmonischen Differentialformen. **81h:31014**
 Kobayashi, Shōji (with Saita, Nobuyuki) On subordination of subharmonic functions. **81m:31005**
 Saita, Nobuyuki See Kobayashi, Shōji, **81m:31005**

secondary classifications:

- Bleeker, David D. Infinitesimal deformations of portions of the standard sphere in E^1 . (**81h:53060**)
 Debiard, Amédée (with Gaveau, Bernard) Une formule de Green locale pour un espace symétrique irréductible de rang 2. (English summary) (**81k:32025**)
 Elle, Laure Fonctions harmoniques positives sur le groupe affine. (**81a:60063**)
 Futaki, Akito On the uniqueness of the Dirichlet problem for harmonic maps. (**81f:58017**)
 Gauthier, P. M. (with Goldstein, Myron; Ow, Wellington H.) Uniform approximation on unbounded sets by harmonic functions with logarithmic singularities. (**81m:30033**)
 Gaveau, Bernard See Debiard, Amédée, (**81k:32025**)
 Goldstein, Myron See Gauthier, P. M.; et al., (**81m:30033**)
 Jost, Jürgen Eine geometrische Bemerkung zu Sätzen über harmonische Abbildungen, die ein Dirichletproblem lösen. (English summary) (**81m:58027**)
 Korányi, Adam Compactifications of symmetric spaces and harmonic functions. (**81c:32037**)
 Maistero, Anna Maria Modified Poisson kernels on rank one symmetric spaces. (**81f:22015**)
 Ow, Wellington H. See Gauthier, P. M.; et al., (**81m:30033**)
 Seničkin, V. N. Subharmonic functions and the analytic structure in the space of maximal ideals of a uniform algebra. (Russian) (**81m:46077**)
 Streeter, R. F. A bound for the difference Laplacian. (**81b:39004**)
 Wanby, Göran A generalization of the Phragmén-Lindelöf principle for elliptic differential equations. (**81b:35021**)
 Xu, Yi Chao On the Bergman kernel function of homogeneous bounded domains. (**81f:32045**)

31C10 Pluriharmonic and plurisubharmonic functions [See also 32F05]

- Okada, Masami Intégrales de volume et fonction maximale pour les fonctions plurisourharmoniques dans la boule. (English summary) **81k:31013**

secondary classifications:

- Anandam, Victor An invitation to plurisubharmonic functions. (81a:32015)
 Bedford, Eric Extremal plurisubharmonic functions and pluripolar sets in \mathbb{C}^2 . (81j:32021)
 An example of a plurisubharmonic measure on the unit ball in \mathbb{C}^2 . (81i:32013)
 Cegrell, Urban Some characterizations of L -regular points. (81m:32022)
 Debiard, Amédée (with Gaveau, Bernard) Balayage des fonctions plurisousharmoniques de Rickart et applications à certaines algèbres de fonctions holomorphes. (English summary) (81e:32021)
 Diniev, S. G. (with Muškarov, O. K.) Fonctions presque pluriharmoniques. (81g:53027)
 Gaveau, Bernard See Debiard, Amédée, (81e:32021)
 Laville, Guy Mesures pluriharmoniques et mesures orthogonales dans le groupe d'Heisenberg. (81k:32008a)
 Sur les mesures pluriharmoniques dans le groupe d'Heisenberg. (English summary) (81k:32008b)
 Muškarov, O. K. See Diniev, S. G., (81g:53027)
 Pflug, Peter Ein Fortsetzungssatz für plurisubharmonische Funktionen über reell-2-kodimensionale Flächen. (81e:32022)
 Sadullaev, A. P -regularity of sets in \mathbb{C}^n . (81m:32020)
 Locally and globally \mathcal{Q} -regular compacta in \mathbb{C}^n . (Russian) (81h:32025)

31C12 Potential theory on Riemannian manifolds [See also 53C20; for Hodge theory, see 58A14.]

Nickel, Paul A. A biharmonic normal operator. 81h:31015

secondary classifications:

- Drescher, Bernd (with Schempp, Walter) On some applications of Bochner-Schoenberg-Eberlein-type theorems. (81c:43007)
 Imai, Hideo Bounded Dirichlet finite and L^p finite biharmonic functions on Poincaré ball. (81b:31009)
 Schempp, Walter See Drescher, Bernd, (81c:43007)
 Wang, Cecilia Y. A biharmonic kernel function. (81b:31011)

31C15 Potentials and capacities

Le Jan, Yves Mesures associées à une forme de Dirichlet. Applications. 81c:31014

secondary classifications:

- Bagby, Richard J. A characterization of Riesz potentials, and an inversion formula. (81j:46046)
 Buttu, A. On a generalization of the conformal capacity of a ring. (Italian. English summary) (81k:31011)
 Čechov, V. I. Approximation properties of some classes of vector fields. (Russian. English summary) (81i:31009)
 Charrier, Pierre Système complémentaire pour un problème unilatéral d'évolution: application au problème de temps d'arrêt. (81k:31017)
 Kurokawa, Takahide (with Mizuta, Yoshihiro) On the order at infinity of Riesz potentials. (81h:31011)
 Lawrynowicz, Julian On a class of capacities on complex manifolds endowed with an Hermitian structure and their relation to elliptic and hyperbolic quasiconformal mappings. (81h:32023)
 Mizuta, Yoshihiro See Kurokawa, Takahide, (81h:31011)
 Pleśniak, Wiesław On some polynomial conditions of the type of Leja in \mathbb{C}^n . (81m:32019)
 Pryde, A. J. Spaces with homogeneous norms. (81k:46036)
 Sadullaev, A. The operator $(dd^c)^n$ and condenser capacities. (Russian) (81h:32024)
 Šapovalova, T. O. Equivalent normings in spaces of functions with fractional or functional smoothness. (Russian) (81k:46037)

31C20 Discrete potential theory and numerical methods

Yamasaki, Maretsugu Discrete potentials on an infinite network. 81h:31016

31C25 Dirichlet spaces

- Ancona, Alano Principe de l'enveloppe inférieure pour des potentiels pris par rapport à une forme de Dirichlet. 81c:31015
 Attouch, Hedy (with Picard, Colette) Problèmes variationnels et théorie du potentiel non linéaire. (English summary) 81h:31017
 Jackson, Howard L. On the boundary behaviour of BLD functions and some applications. 81m:31006
 Korl, Toshiaki Problèmes au bord sur un espace harmonique. 81m:31007
 Paclet, Philippe Capacité fonctionnelle sur un espace de Hilbert. (English summary) 81f:31014
 Picard, Colette See Attouch, Hedy, 81h:31017

secondary classifications:

- Bénilan, Philippe (with Picard, Colette) Quelques aspects non linéaires du principe du maximum. (81i:47067)
 Fukushima, Masatoshi \star Dirichlet forms and Markov processes. (81f:60105)
 Le Jan, Yves Balayage et formes de Dirichlet. (81k:60082)
 Paclet, Philippe Formes de Dirichlet non symétriques et contractions normales. (Italian summary) (81h:46017)
 Picard, Colette See Bénilan, Philippe, (81i:47067)
 Silverstein, Martin L. On the closability of Dirichlet forms. (81g:60073)

31C35 Martin boundary theory [See also 60J50.]

31C99 None of the above, but in this section

- Ancona, Alano Théorème de Fatou et frontière de Martin pour une classe d'opérateurs elliptiques dans un demi-espace. (English summary) 81i:31021
 Berg, Christian (with Laub, Jesper) The resolvent for a convolution kernel satisfying the domination principle. (French summary) 81c:31016
 Feyel, Denis La quasi-continuité dans l'étude du problème de Dirichlet. Effilement minimal abstrait et ensembles convexes compacts. (English summary) 81i:31022
 Itô, Masayuki Sur le principe de domination relatif, le balayage et les noyaux conditionnellement sous-médians. 81j:31009
 Laub, Jesper A remark on the singular part of a convolution kernel satisfying the domination principle. 81m:31008
 See also Berg, Christian, 81c:31016

secondary classifications:

- Burkovskaja, V. L. See Makarov, V. L.; et al., (81c:41044)
 Coffman, Charles V. (with Grover, Carole L.) Obtuse cones in Hilbert spaces and applications to partial differential equations. (81m:46036)
 Feyel, Denis Propriétés de permanence du domaine d'un générateur infinitésimal. (81a:47047)
 Compléments sur la convergence presque sûre des familles résolues. (81a:47046)
 Grover, Carole L. See Coffman, Charles V., (81m:46036)
 Jannassakakis, A. I. A property of harmonic mappings connected with the Neumann function. (Russian) (81c:31008)
 Klunnik, O. O. See Makarov, V. L.; et al., (81c:41044)
 Makarov, V. L. (with Burkovskaja, V. L.; Klunnik, O. O.) An interpolation problem in a class of X^* -harmonic functions. (Russian) (81c:41044)

31D05 Axiomatic potential theory

- Allain, Guy Décomposition des formes de Dirichlet. (English summary) 81c:31005
 Anandam, Victor Admissible superharmonic functions and associated measures. 81b:31012
 Bauer, Heinz Halbgruppen und Resolventen in der Potentialtheorie. 81a:31009
 Bledtner, Jürgen Axiomatic foundation of potential theory. 81c:31017
 Boboc, N. (with Bucur, Gh.; Cornea, Aurel) Carrier theory and negligible sets on a standard H -cone of functions. 81h:31023
 Boukriche, Abderrahman Das Picard-Prinzip und verwandte Fragen bei Störung von harmonischen Räumen. 81h:31018
 Brelot, Marcel Équation de Weinstein et potentiels de Marcel Riesz. 81a:31010
 Sur le théorème de partition de Mme R. M. Hervé. 81g:31009
 Bucur, Gh. See Boboc, N.; et al., 81h:31023
 Cornea, Aurel (with Höllein, Herbert) Bases and essential bases in H -cones. 81c:31018
 See also Boboc, N.; et al., 81h:31023
 Feyel, Denis Espaces de Banach fonctionnels adaptés. Quasi-topologies et balayage. 81c:31006
 (with de la Pradelle, Arnaud) Représentations d'espaces de Riesz-Banach sur des espaces quasi-topologiques. 81h:31020
 (with de la Pradelle, Arnaud) Produits tensoriels d'espaces de Banach adaptés. Applications à la fonction de Green. 81h:31019
 Fuglede, Bent Harnack sets and openness of harmonic morphisms. 81f:31015
 Goldstein, Myron (with Ow, Wellington H.) A converse of the Riesz decomposition theorem for harmonic spaces. 81h:31021
 Guilleme, Jean Sur la notion de flux de Nakai dans un espace harmonique sans potentiel positif. 81f:31016
 Hansen, W. Semipolar sets are almost negligible. 81c:31013
 Perturbation of harmonic spaces. 81m:31009
 (Hervé, R.-M.) See Brelot, Marcel, 81g:31009
 Hirsch, Francis Opérateurs carré du champ (d'après J. P. Roth). 81f:31017
 Höllein, Herbert See Cornea, Aurel, 81c:31018
 Hueber, Hermann On boundary Harnack principles and poles of extremal harmonic functions. 81d:31016
 On boundary Harnack principles and singularities of extremal harmonic functions. 81m:31010
 Ikegami, Teruo On the regularity of boundary points in a resolutive compactification of a harmonic space. 81h:31014
 Remarks on the regularity of boundary points in a resolutive compactification. 81c:31019
 Ito, Mariko The existence of positive harmonic functions and Green operators. 81j:31010
 Leutwiler, Heinz Harmonic functions of bounded mean oscillation. 81d:31017
 Harmonic functions of bounded mean oscillation and a generalization to vector lattices of continuous functions. 81m:31011
 Loeb, Peter A. A regular boundary supporting representing measures of bounded functions in a Bauer harmonic space. 81m:31012
 A regular metrizable boundary for solutions of elliptic and parabolic differential equations. 81h:31024
 Lukes, Jaroslav On the set of semiregular points. 81m:31013
 Lyons, Terry A definition of BMO₂ for an abstract harmonic space and a John-Nirenberg theorem. 81h:31022
 Maeda, Fumi-Yuki Differential equations associated with harmonic spaces. 81h:31015
 Mokobodzki, Gabriel Sur l'algèbre contenue dans le domaine étendu d'un générateur infinitésimal. 81c:31007
 Ow, Wellington H. See Goldstein, Myron, 81h:31021
 de la Pradelle, Arnaud Cônes de potentiels dans des espaces de Banach adaptés et dualité. 81h:31023
 See also Feyel, Denis, 81h:31019 and Feyel, Denis, 81h:31020
 Schirmeier, Horst (with Schirmeier, Ursula) Einige Bemerkungen über den Satz von Keldych. 81h:31024

- Schirmeier, Ursula Produkte harmonischer Räume. 81h:31025
 Banach-Stone-type theorems for harmonic spaces. 81d:31018
 Konvergenzeigenschaften in harmonischen Räumen. 81h:31025
 See also Schirmeier, Horst. 81h:31024

Smeynès, Emmanuel P. Support biharmonique et supports harmoniques associés. 81m:31014

Suruki, Noriaki On the essential boundary and supports of harmonic measures for the heat equation. 81m:31015

Thyagarajan, Rajeswari A characterization of regular points for the Dirichlet problem in a harmonic space. 81h:31026

Werner, John Capacity and uniform algebras. 81f:31018

secondary classifications:

Ancona, Alano Principe de l'enveloppe inférieure pour des potentiels pris par rapport à une forme de Dirichlet. (81c:31015)

Arsove, Maynard (with Leutwiler, Heinz) Algebraic potential theory. (81f:31002)

Aršov, S. A. (with Dolganov, R. L.) Uniform approximation of abstract harmonic functions. (Russian. Tajiki summary) (81h:41073)

Bauer, Udo Potentialtheoretische Charakterisierung Riemannscher Flächen. (81k:30065)

Becker, Richard Sur les cônes inf-stables de fonctions continues sur un espace compact. (81m:46040)

Dolganov, R. L. See Aršov, S. A., (81h:41073)

Feyel, Denis Relations entre ensembles clairsémés et ensembles semi-polaires. (English summary) (81k:54048)

Guesous, Hassan Prolongement surharmonique dans un espace harmonique. Notion de flux. (81m:31004)

Kori, Toshiaki Problèmes au bord sur un espace harmonique. (81m:31007)

Leutwiler, Heinz See Arsove, Maynard, (81f:31002)

Lumer, G. Connecting of local operators and evolution equations on networks. (81m:35078)

Martynenko, M. D. (with Šipka, I. G.) Fundamental solutions of metaharmonic equations in a finite-sheeted Riemann space. (Russian. English summary) (81h:30079)

Šipka, I. G. See Martynenko, M. D., (81h:30079)

Zarelua, A. V. Algebraic characterization of certain classes of mappings and the perfectness of Wiener extensions of harmonic spaces. (Russian) (81e:54025)

32-XX SEVERAL COMPLEX VARIABLES AND ANALYTIC SPACES (For infinite-dimensional holomorphy, see also 46G20, 58B12.)

secondary classifications:

Cartan, Henri ★Œuvres. Vol. I, II, III. (French) [Works. Vol. I, II, III] (81c:01031)

(Remmert, Reinhold) See Cartan, Henri, (81c:01031)

(Serre, Jean-Pierre) See Cartan, Henri, (81c:01031)

Bibliography:

Cartan, Henri See Cartan, Henri, (81c:01031)

Biography:

Cartan, Henri See Cartan, Henri, (81c:01031)

32-01 Elementary exposition, textbooks

secondary classifications:

(Čirka, E. M.) See Forster, O., (81g:30056)

Forster, O. ★Римановы поверхности. (Russian) [Riemann surfaces] (81g:30056)

Nachbin, Leopoldo Warum unendlichdimensionale Holomorphie? (81f:46053)

32-02 Advanced exposition (research surveys, monographs, etc.)

Tomassini, Giuseppe Geometry and complex analysis. (Italian) 81j:32001

Vladimirov, V. S. Functions of several complex variables in mathematical physics. (Russian) 81h:32001

32-03 Historical (must also be assigned at least one classification number from Section 01)

32-04 Explicit machine computation and programs (not the theory of computation or programming)

32-06 Proceedings, conferences, etc.

(Bavrin, I. I.) See Mathematical analysis and the theory of functions, 81c:32001

(Lawrynowicz, Julian) See Analytic functions, 81d:32001

(Lelong, Pierre) See Séminaire: Pierre Lelong-Henri Skoda (Analyse), 81j:32003

(Norguet, François) See Functions of several complex variables, 81j:32002

(Skoda, Henri) See Séminaire: Pierre Lelong-Henri Skoda (Analyse), 81j:32003

Analysis ★Séminaire Pierre Lelong-Henri Skoda (Analyse). Années 1978/79. (French) 81j:32003

Analytic functions ★Analytic functions, Kozubnik 1979. 81d:32001

Analytic varieties and various problems on stratified spaces ★Analytic varieties and various problems on stratified spaces. (Japanese) 81m:32001

Colloque:

Analyse Harmonique et Complexe ★Colloque d'Analyse Harmonique et Complexe. (French) [Colloquium on complex and harmonic analysis] 81a:32001

Complex analysis ★Colloque d'Analyse Harmonique et Complexe. (French)

[Colloquium on complex and harmonic analysis] 81a:32001

Conference:

Analytic Functions ★Analytic functions, Kozubnik 1979. 81d:32001

Functions of several complex variables ★Fonctions de plusieurs variables complexes. IV. (French) [Functions of several complex variables. IV] 81j:32002

Harmonic analysis ★Colloque d'Analyse Harmonique et Complexe. (French)

[Colloquium on complex and harmonic analysis] 81a:32001

Kozubnik ★Analytic functions, Kozubnik 1979. 81d:32001

La Garde-Freinet ★Colloque d'Analyse Harmonique et Complexe. (French)

[Colloquium on complex and harmonic analysis] 81a:32001

Mathematical analysis and the theory of functions ★Математический анализ и теория функций. Вып. 8. (Russian) [Mathematical analysis and the theory of functions. No. 8] 81c:32001

Séminaire:

Pierre Lelong-Henri Skoda (Analyse) ★Séminaire Pierre Lelong-Henri Skoda (Analyse). Années 1978/79. (French) 81j:32003

Seminar:

François Norguet ★Fonctions de plusieurs variables complexes. IV. (French) [Functions of several complex variables. IV] 81j:32002

Stratified spaces ★Analytic varieties and various problems on stratified spaces. (Japanese) 81m:32001

Symposium:

Analytic Varieties and Various Problems on Stratified Spaces ★Analytic varieties and various problems on stratified spaces. (Japanese) 81m:32001

Theory of functions ★Математический анализ и теория функций. Вып. 8. (Russian) [Mathematical analysis and the theory of functions. No. 8] 81c:32001

secondary classifications:

(Aupetit, Bernard) See Complex approximation, (81d:30065)

(Jagolnitzer, Daniel) See Complex analysis, microlocal calculus and relativistic quantum theory, (81e:81003)

(Suvorov, G. D.) See Theory of functions and mappings, (81h:30002)

Calculus ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)

Colloquium:

Complex Analysis, Microlocal Calculus and Relativistic Quantum Theory ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)

Complex analysis, microlocal calculus and relativistic quantum theory ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)

Complex approximation ★Complex approximation. (81d:30065)

Conference:

Complex Approximation ★Complex approximation. (81d:30065)

Partial Differential Equations ★Journées "Équations aux Dérivées Partielles". (French) [Conference on Partial Differential Equations] (81j:35002)

Les Houches ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)

Mappings ★Теория функций и отображений. (Russian) [Theory of functions and mappings] (81h:30002)

Partial differential equations ★Journées "Équations aux Dérivées Partielles". (French) [Conference on Partial Differential Equations] (81j:35002)

Quantum theory ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)

Quebec ★Complex approximation. (81d:30065)

Saint Jean de Monts ★Journées "Équations aux Dérivées Partielles". (French) [Conference on Partial Differential Equations] (81j:35002)

Theory of functions and mappings ★Теория функций и отображений. (Russian) [Theory of functions and mappings] (81h:30002)

32Axx Holomorphic functions of several complex variables

32A05 Power series, series of functions

Fillmonova, L. A. Determination of the boundary of the domain of absolute convergence of multiple Dirichlet series. (Russian) 81h:32002

Geč, F. I. The Newton diagram and its application to the study of the maximum term of a multiple Laurent series. II. (Russian) 81j:32004a

The Newton diagram and its application to the study of the maximum term of a multiple Laurent series. III. (Russian) 81j:32004b

Schwarz, Wolfgang See Spilker, Jürgen, 81d:32002

Spilker, Jürgen (with Schwarz, Wolfgang) Wiener-Lévy-Sätze für absolut konvergente Reihen. 81d:32002

secondary classifications:

Perko, Richard Zur Theorie der partiellen Differentialgleichungen vom Briot-Bouquet'schen Typ. (81g:35012)

Sen, Septhali Power series in several variables with coefficients and variables in a commutative Banach algebra. (81a:46065)

Siemaszko, Wojciech Branched continued fractions for double power series. (81h:30006)

32A07 Special domains (Reinhardt, Hartogs, tube domains, etc.)

Sadullayev, A. Schwarz's lemma for circular domains and its application. (Russian) 81g:32001

Werner, John On a domain equivalent to the bidisk. 81g:32002

Zelins'kii, Ju. B. The connection of properties of sets with properties of their cross sections and projections. (Russian) 81e:32001

secondary classifications:

Širinbekov, M. Construction of envelopes of holomorphy for multiple Hartogs domains. (Russian) (81d:32022)

Suchb, L. L. A short proof of the fact that biholomorphic automorphisms of the unit ball in certain L^p spaces are linear. (81c:32036)

32A10 Holomorphic functions

Babec, V. A. On the question of the structure of exclusive sets of integral curves. (Russian) 81c:32002

Bavrin, I. I. The class of regular functions with positive real part in the case of several complex variables and extremal questions in this class and in the class V_D . (Russian) 81c:32003

Generalization of functions, regular in the disc and close-to-starlike, to the case of several complex variables. (Russian. English summary) 81k:32001

Bondar, A. V. On differentiable operator-conformal mappings. (Russian) 81k:32002

Krantz, Steven G. Correction to: "Intrinsic Lipschitz classes on manifolds with applications to complex function theory and estimates for the $\bar{\partial}$ and $\bar{\partial}_b$ equations" [Manuscripta Math. 24 (1978), no. 4, 351-378; MR 80b:26020]. 81j:32005

Lazbidze, T. I. The sharpness of estimates in the class $R_D(a)$ in the case of a hyperball. (Russian. Georgian and English summaries) 81k:32003

Ramankutty, P. Functional dependence and analytic functions. 81k:32004

secondary classifications:

Bierstedt, Klaus-Dieter (with Meise, Reinhold) Aspects of inductive limits in spaces of germs of holomorphic functions on locally convex spaces and applications to a study of $(H(U), \tau_0)$. (81k:46052)

Boland, Philip J. (with Dineen, Seán) Holomorphic functions on fully nuclear spaces. (French summary) (81b:46060)

Demally, Jean-Pierre Fonctions holomorphes à croissance polynomiale sur la surface d'équation $e^+ + e^- = 1$. (English summary) (81c:32049)

Dineen, Seán Holomorphic functions on nuclear sequence spaces. (81k:46051)

See also Boland, Philip J., (81b:46060)

Gonzalez, M. O. The n -dimensional Cauchy-Riemann equations. (81a:32012)

Meise, Reinhold See Bierstedt, Klaus-Dieter, (81k:46052)

Murimoto, Mitsuo A generalization of the Fourier-Borel transformation for the analytic functionals with nonconvex carrier. (81j:46067)

Mujica, Jorge Spaces of germs of holomorphic functions. (81k:46054)

Schwarz, Wolfgang See Spilker, Jürgen, (81d:32002)

Spilker, Jürgen (with Schwarz, Wolfgang) Wiener-Lévy-Sätze für absolut konvergente Reihen. (81d:32002)

Wong, B. A maximum principle on Clifford torus and nonexistence of proper holomorphic map from the ball to polydisc. (81k:32023)

32A15 Entire functions

Agrasović, P. Z. (with Ronkin, L. I.) Functions of completely regular growth of several variables. (Russian) 81k:32005

Avanissian, Vazgail (with Traoré, Abou) Extension des théorèmes de Hartogs et de Lindelöf aux fonctions polyanalytiques de plusieurs variables. 81j:32006

Gay, Roger Divisions des fonctionnelles analytiques. Applications aux fonctions moyennes périodiques. 81h:32003

Gopala Krishna, J. Power series in one or several complex variables with independent random coefficients. 81c:32002

Jain, D. R. (with Jain, Pawan K.) Proper bases and homeomorphisms in the space of entire functions of several variables over non-Archimedean fields. 81j:32007

Jain, Pawan K. See Jain, D. R., 81j:32007

Kar, A. K. (with Lahiri, B. K.) On the space of entire functions. 81k:32001

Lahiri, B. K. See Kar, A. K., 81k:32001

Namli, M. Goncharov polynomials generating functions of two complex variables. 81c:32003

Nguyen Thanh Van Sur les fonctions analytiques de la forme $f(x, y) = (\sum_{j=1}^n x_j y_j) \exp(h(x, y))$. 81f:32001

Nishimura, Yasuhiro Problème d'extension dans la théorie des fonctions entières d'ordre fini. 81m:32002

Runkin, A. L. Quasipolynomial sets of zeros. (Russian) 81a:32002

Runkin, L. I. Continuation of a function of finite order that is holomorphic on the set of zeros of a polynomial of two variables. (Russian) 81d:32003

See also Agrasović, P. Z., 81k:32005

Somasundaram, D. On the space of a certain class of entire functions of several complex variables. 81g:32003

Traoré, Abou See Avanissian, Vazgail, 81j:32006

Winiarski, T. Zeros of entire functions. 81g:32004

secondary classifications:

Berenstein, Carlos A. (with Taylor, B. A.) Mean-periodic functions. (81i:42014)

Columbeau, J. F. (with Perrot, B.) Convolution equations in spaces of infinite-dimensional entire functions of exponential and related types. (81h:46047)

Jain, D. R. (with Singh, Balbir) On a space of analytic Dirichlet transformations of several complex variables. (81f:46035)

See also Saxena, R. K.; et al., (81m:46104)

Jain, Pawan K. See Saxena, R. K.; et al., (81m:46104)

Kamalya, I. P. (with Ostrovski, I. V.) Null sets of entire Hermitian-positive functions. (Russian. English summary) (81m:60026)

Kočinjan, L. S. See Sarkisjan, S. C., (81d:32004)

Ostrovski, I. V. See Kamalya, I. P., (81m:60026)

Perrot, B. See Columbeau, J. F., (81h:46047)

Sarkisjan, S. C. (with Kočinjan, L. S.) A theorem of Picard type. (Russian) (81d:32004)

Saxena, R. K. (with Jain, D. R.; Jain, Pawan K.) On certain classes of entire functions over non-Archimedean fields. (81m:46104)

Singh, Balbir See Jain, D. R., 81j:32007

Skoda, Henri Integral methods and zeros of holomorphic functions. (81g:32005)

Srivastava, J. K. See Srivastava, R. K., (81a:46027)

Srivastava, R. K. (with Srivastava, J. K.) Space of integral functions of several complex variables. (81a:46027)

Taylor, B. A. See Berenstein, Carlos A., (81i:42014)

32A17 Normal families

32A20 Meromorphic functions

Aurich, Volker Der invariante Kontinuitätssatz für meromorphe Funktionen. (English summary) 81f:32002

32A22 Nevanlinna theory: growth estimates (For geometric theory, see 32H25, 32H30.)

Charpentier, Philippe Sur la formule de Jensen et les zéros des fonctions holomorphes dans le polydisque. 81c:32004

Degtiar, P. V. See Sadullaev, A., 81m:32003

Kočinjan, L. S. See Sarkisjan, S. C., 81d:32004

Krantz, Steven G. Estimates for integral kernels of mixed type, fractional integration operators, and optimal estimates for the $\bar{\partial}$ operator. 81k:32002

Molzon, Robert E. The Bezout problem for a special class of functions. 81a:32003

Sadullaev, A. (with Degtiar, P. V.) Approximation divisors and other questions of multidimensional Nevanlinna theory. (Russian) 81m:32003

Sarkisjan, S. C. (with Kočinjan, L. S.) A theorem of Picard type. (Russian) 81d:32004

Skoda, Henri Integral methods and zeros of holomorphic functions. 81g:32005

secondary classifications:

Babec, V. A. On the question of the structure of exclusive sets of integral curves. (Russian) (81c:32002)

Gruman, Lawrence La distribution des valeurs des applications holomorphes. (81h:32032)

Value distribution for holomorphic maps in C^n . (81h:32031)

Grumsky, Helmut Konvexe Familien holomorpher Funktionen. (81d:30045)

Sibony, Nessim (with Wong, Pit Mann) Capacité et propriétés globales d'ensembles analytiques. (81d:32035)

Wong, Pit Mann See Sibony, Nessim, (81d:32035)

32A25 Integral representation

Airapetian, R. A. Boundary properties of an integral of Cauchy-Leray type in piecewise smooth domains in C^n , and some applications. (Russian) 81h:32004

Aizenberg, L. A. (with Juzakov, A. P.) ★Интегральные представления и вычеты в многомерном комплексном анализе. (Russian) [Integral representations and residues in multidimensional complex analysis] 81d:32005

Chen, Shu Jin The integral representation of analytic functions on a bounded convex domain in C^n . (Chinese. English summary) 81m:32004

Ch, A. K. Theorem on the full sum of residues in C^n . (Russian) 81d:32006

Eropkin, Ju. P. The behavior of integrals of Temljakov-Bavrin type outside a domain of holomorphy. (Russian) 81c:32004

Gorelov, I. V. An integral representation of functions of several complex variables. (Russian. Tajiki summary) 81m:32005

Henkin, G. M. Analytic representation for CR-functions on submanifolds of codimension 2 in C^n . 81k:32006

An analytic representation for CR-functions on manifolds of codimension 2 in C^n . (Russian) 81d:32007

Hovstov, A. T. A study of an integral representation of functions of two complex variables that are analytic in circular domains. (Russian) 81c:32005

Juzakov, A. P. See Aizenberg, L. A., 81d:32005

Kas'janov, E. Ju. The behavior of integrals of Temljakov-Bavrin type of the first kind and of second order on the set of infinitely distant points of the space C^n . (Russian) 81c:32006

Properties of integrals of Temljakov-Bavrin type of the first kind and of second order with unbounded determining domain. (Russian) 81c:32007

Roos, Guy Procédure de recollement de noyaux de formules intégrales: intégration partielle dans la formule de Cauchy-Fantappiè. 81d:32008

Seckin, G. I. Temljakov integrals of the third kind. (Russian) 81c:32008

Stout, Edgar Lee Cauchy-Stieltjes integrals on strongly pseudoconvex domains. 81g:32006

Tereščenko, G. M. Some properties of integrals of Temljakov type with unbounded complete bicircular determining domain. (Russian) 81c:32009

Limit values of an analogue of an integral of Temljakov type of the first kind at the points of the circle of singularities. (Russian) 81c:32010

Vasilescu, F.-H. Analytic perturbations of the $\bar{\partial}$ -operator and integral representation formulas in Hilbert spaces. 81d:32009

secondary classifications:

Brusch, Massimo (with Ricci, Paolo Emilio) Functions of matrices and generator functions of Lucas polynomials in r variables. (Italian. English summary) (81f:05012a)

(with Ricci, Paolo Emilio) The functions $F_{k,n}$ and generalized Lucas polynomials of the second kind. (Italian. English summary) (81f:05012b)

Kuratsuji, Hiroshi (with Suzuki, Tōru) Path integral in the representation of $SU(2)$ coherent state and classical dynamics in a generalized phase space. (81c:81019)

Ricci, Paolo Emilio See Brusch, Massimo, (81f:05012a) and Brusch, Massimo, (81f:05012b)

Saito, Tetsuo Hölder estimates on higher derivatives of the solution for $\bar{\partial}$ -equation with C^k -data in strongly pseudoconvex domain. (81g:32014)

Ševčenko, V. I. The Hilbert problem for a holomorphic vector in a multidimensional

space. (Russian) (81m:35053)
 Suzuki, Tōru See Kuratsunji, Hiroshi, (81c:81019)

32A27 Local theory of residues [See also 32C30.]

Aizenberg, L. A. (with Cih, A. K.) Application of a multidimensional logarithmic residue to systems of nonlinear algebraic equations. (Russian) 81a:32004
 Cih, A. K. See Aizenberg, L. A., 81a:32004
 Vinogradov, M. M. Theory of residues in commutative algebras. (Russian) 81h:32005

secondary classifications:

Cih, A. K. See Južakov, A. P., (81i:32019)
 Južakov, A. P. (with Cih, A. K.) The multiplicity of the zero of a system of holomorphic functions. (Russian) (81i:32019)

32A30 Other generalizations of function theory of one complex variable (should also be assigned at least one classification number from Section 30) [For functions of several hypercomplex variables, see 30G35.]

Balk, M. B. (with Manuilov, N. F.) Factorization of an entire polyanalytic function of several variables having a bounded null set. (Russian) 81c:32011
 Bavrin, I. I. A class of univalent mappings in Banach spaces. (Russian. Georgian and English summaries) 81h:32007
 Hollov, Ju. E. Mocanu and Bazilevič functions of several complex variables. (Russian) 81j:32006
 Kakhlev, V. A. Analysis of conditions for the solvability of a class of spatial Riemann problems. (Russian) 81c:32012
 Manuilov, N. F. See Balk, M. B., 81c:32011
 Mihallov, L. G. Compatibility conditions and manifolds of solutions to a generalized Cauchy-Riemann system with several variables. (Russian) 81c:32005
 Romkin, A. I. Theorem on division of quasipolynomials. (Russian) 81h:32006

secondary classifications:

Blanchini, M. (with Paques, O. W.; Zaine, M. C.) On the strong compact-ported topology for spaces of holomorphic mappings. (81b:46059)
 Bose, N. K. Test for polynomial zeros on a polydisc and consequences. (81b:12023)
 Colombese, J. F. A result of existence of holomorphic maps which admit a given asymptotic expansion. (81b:46061)
 Feneyrol-Perrin, Yvette. Fonctions analytiques de plusieurs variables sur certains corps valués au sens de Krull. (English summary) (81a:12019)
 Groman, Detlef (with Reich, Ludwig) Meromorphe Lösungen einer Klasse linearer partieller Differentialgleichungen. (81m:35021)
 Le Hung Son. Maximale Erweiterung des Definitionsgebietes von Lösungen des n -dimensionalen Beltramschen Systems. (81f:35020)
 Ōuchi, Sunao. Asymptotic behaviour of singular solutions of linear partial differential equations in the complex domain. (81m:35019)
 Owa, Shigeo. On the fractional partial derivative and its application. (81k:46046)
 Paques, O. W. See Blanchini, M.; et al., (81b:46059)
 Reich, Ludwig. See Groman, Detlef, (81m:35021)
 Sadykov, V. E. Asymptotic behavior of a class of double integrals depending on two parameters. (Russian) (81c:41074)
 Zaine, M. C. See Blanchini, M.; et al., (81b:46059)

32A35 H^p -spaces [See also 32M15, 42B30, 43A85, 46J15.]

de Bartolomeis, Paolo (with Landucci, Mario) Régularisation au bord et problème de Cauchy pour l'opérateur $\bar{\partial}$ à croissance de "type Hardy". 81c:32013
 Berkson, Earl (with Porta, Horacio) The p -norms of peak functions. 81h:32007
 (with Porta, Horacio) The group of isometries on Hardy spaces of the n -ball and the polydisc. 81m:32006
 Chee, P. S. Universal functions in several complex variables. 81c:32014
 Deliard, Amédée. Fonction de Littlewood-Paley et dualité H_1 , BMO dans le cas de l'espace hermitien hyperbolique de C^n , $n > 1$. (English summary) 81c:32015
 Fefferman, Robert A. Bounded mean oscillation on the polydisc. 81c:32016
 Geller, Daryl. Some results in H^p theory for the Heisenberg group. 81j:32009
 Gundy, Richard F. Maximal function characterization of H^p for the bidisc. 81h:32008
 Krantz, Steven G. Analysis on the Heisenberg group and estimates for functions in Hardy classes of several complex variables. 81g:32007
 Landucci, Mario. See de Bartolomeis, Paolo, 81c:32013
 Lempert, László. Boundary behaviour of meromorphic functions of several variables. 81c:32006
 Macias, Roberto A. (with Segovia, Carlos) Lipschitz functions on spaces of homogeneous type. 81c:32017a
 (with Segovia, Carlos) A decomposition into atoms of distributions on spaces of homogeneous type. 81c:32017b
 Porta, Horacio. See Berkson, Earl, 81h:32007 and Berkson, Earl, 81m:32006
 Riesenberger, Nathaniel R. An extreme point in $H^\infty(U^2)$. 81c:32007
 Rudin, Walter. Some representing measures for the ball algebra. 81m:32007
 Segovia, Carlos. See Macias, Roberto A., 81c:32017a and Macias, Roberto A., 81c:32017b
 Varopoulos, Nicolas. B.M.O. functions in complex analysis. 81c:32018
 Weyland, Nicholas. Remarks on zeros of H^p functions in balls. 81c:32019
 Yacoubi, Atika. L'ingéatité de Hardy pour l'espace $H^1(\text{SU}(2))$. 81c:32008

secondary classifications:

Berger, Charles A. (with Coburn, Lewis A.) Wiener-Hopf operators on U_p . (81c:47031)
 Berkson, Earl (with Porta, Horacio) The group of isometries of H^p . (81c:43009)

Charris Castañeda, Jairo A. Certain spaces of holomorphic functions and their applications. II. (Spanish) (81k:47019)
 Coburn, Lewis A. See Berger, Charles A., (81c:47031)
 Džrbaijan, A. È. Weighted norm estimate for the function g_p . (Russian. Armenian and English summaries) (81j:42038)
 Gowrisankaran, Kohur. Negligible sets and good functions on polydiscs. (French summary) (81a:32013)
 Jones, Peter W. Extension theorems for BMO. (81b:42047)
 Michel, Dominique. Bimartingales invariantes sous l'action d'une application pseudo-conforme et fonctions pluriharmoniques. (English summary) (81g:60057)
 Okada, Masami. Intégrales de volume et fonction maximale pour les fonctions plurisousharmoniques dans la boule. (English summary) (81c:32039)
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- Drozhinov, Ju. N. (with Zav'jalov, B. I.) Tauberian theorems for generalized functions with carriers in the cones. (Russian) (81a:46045)
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- Amar, Vicente Navarro On the Chern classes and the Euler characteristic for nonsingular complete intersections. (81m:57016)
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- Golovin, V. D. Separability theorems. (Russian) **(81f:32015)**
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 Jouanolou, J. P. ★Équations de Pfaff algébriques. (French) [Algebraic Pfaffian equations] **(81k:14008)**
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 Langevin, Rémi Classe moyenne d'une sous-variété d'une sphère ou d'un espace projectif. **(81k:14004)**
 Lauer, Henry B. Ambient deformations for exceptional sets in two-manifolds. **(81f:32027)**
 Lepowsky, James (with Moody, Robert V.) Hyperbolic Lie algebras and quasiregular cusps on Hilbert modular surfaces. **(81c:10030)**
 Moody, Robert V. See Lepowsky, James, **(81c:10030)**
 Noui-Mehidi, Samir Caractérisations algébriques des singularités de Thom-Boardman de courbes planes. (English summary) **(81j:32006)**
 Oniki, Ikunō On the microlocal structure of the regular prehomogeneous vector space associated with $SL(5) \times GL(4)$. I. **(81k:20057)**
 On the microlocal structure of a regular prehomogeneous vector space associated with $GL(8)$. **(81k:20058)**
 Saito, Kyoji (with Yano, Tamaki; Sekiguchi, Jirō) On a certain generator system of the ring of invariants of a finite reflection group. **(81g:20095)**
 Sekiguchi, Jirō See Saito, Kyoji; et al., **(81g:20095)**
 Suzuki, Masahiko See Yoshinaga, Etsuo, **(81b:32001)**
 Varchenko, A. N. Contact structures and isolated singularities. (Russian. English summary) **(81h:57015)**
 Vasil'ev, V. A. Asymptotic behavior of exponential integrals in the complex domain. (Russian) **(81m:41035)**
 Yano, Tamaki See Saito, Kyoji; et al., **(81g:20095)**

- Yoshinaga, Etsuo (with Suzuki, Masahiko) Normal forms of nondegenerate quasihomogeneous functions with inner modality < 4 . **(81b:32001)**

32C42 Stratified sets, etc. [See also 32Bxx.]

secondary classifications:

- Bruce, James William On the canonical stratification of complex analytic functions. **(81f:32008)**
 A stratification of the space of cubic surfaces. **(81c:14022)**
 Kuo, Tzee Char (with Lu, Yung Chen) Sufficiency of jets via stratification theory. **(81h:58015)**
 Lu, Yung Chen See Kuo, Tzee Char, **(81h:58015)**
 Schwarz, Gerald W. Lifting smooth homotopies of orbit spaces. **(81h:57024)**
 Segal, Graeme The topology of spaces of rational functions. **(81c:55013)**
 Trotman, David J. A. Interprétations topologiques des conditions de Whitney. **(81f:58005)**

32C45 Modifications, resolution of singularities [See also 14E15.]

- Hirschowitz, André Les deux types de méromorphie différent. **81h:32018**

32C99 None of the above, but in this section

- Zelins'kii, Ju. B. An application of homological methods in the study of conjugate sets in C^n . (Russian) (See **80d:00004**)

secondary classifications:

- Ancona, V. Espaces de Moisèzon relatifs et algébrisation des modifications analytiques. **(81g:32022)**
 Kashiwara, Masaki (with Kawai, Takahiro) Micro-local analysis of Feynman amplitudes. **(81c:81016)**
 Kawai, Takahiro See Kashiwara, Masaki, **(81c:81016)**
 Miyajima, Kimio On the equivalence of embeddings (generalization of an example of Zappa). (Japanese) **(81b:32016)**

32Dxx Analytic continuation

32D05 Domains of holomorphy

- Chmielewski, J. Domains of holomorphy of type A^k . **81m:32014**
 Lin, V. Ja. See Zaidenberg, M. G., **81j:32018**
 Narasimhan, Ramabhadran Domains of holomorphy and pseudoconvex domains. **81h:32019**
 Pfug, Peter Holomorphic functions of polynomial growth and applications. **81h:32020**
 Simha, R. R. On Siu's characterisation of domains of holomorphy. **81f:32018**
 Zaidenberg, M. G. (with Lin, V. Ja.) Bounded domains of holomorphy that cannot be blown down holomorphically. (Russian) **81j:32018**

secondary classifications:

- Moraes, Luiza Amália Theorems of the Cartan-Thullen type and Runge domains. **(81i:46052)**

32D10 Envelopes of holomorphy

- Širinebko, M. Construction of envelopes of holomorphy for multiple Hartogs domains. (Russian) **81d:32022**

secondary classifications:

- Šafli, M. Naser Generalizations of Severi's theorem. (Russian) **(81d:32023)**

32D15 Continuation of analytic objects

- Ellenberg, Ja. M. Complex structures on a manifold with boundary. (Russian) **81f:32019**
 Le Hung Son Fortsetzungssätze vom Hartogsschen Typ für verallgemeinerte analytische Funktionen mehrerer komplexer Variabler. **81m:32015**
 Nono, Kiyoharu Holomorphy and boundedness of separately holomorphic functions. **81c:32016**
 Separately holomorphic functions on a product space of an infinite number of complex planes. **81k:32013**
 Ovdirkov-Budko, B. I. P. Montel's uniqueness theorem in the case of n ($n > 2$) variables and some of its applications. (Russian) **81h:32014**
 Šafli, M. Naser Generalizations of Severi's theorem. (Russian) **81d:32023**
 Schirra, Willi Wolfgang Hyperfunktionen und Sätze vom Typ Edge-of-the-Wedge. (English summary) **81d:32024**

secondary classifications:

- Dellu, Anca An extension theorem for bounded cohomology classes with coefficients in a locally free sheaf. **(81g:32011)**
 Donoghue, William F., Jr. Reproducing kernel spaces and analytic continuation. **(81j:32027)**
 Kiremidjian, Garo K. A direct extension method for CR structures. **(81k:32030)**

32D20 Removable singularities

- Kita, Michitake The Riemann-Hilbert problem and its application to analytic functions of several complex variables. **81c:32028a**

- The Riemann-Hilbert problem in several complex variables. II. **81c:32028**
Rilientaus, Jehani Removable singularities of analytic and meromorphic functions of several complex variables. **81d:32025**

secondary classifications:

- Aurich, Volker** Der invariante Kontinuitätssatz für meromorphe Funktionen. (English summary) **(81f:32002)**
Bondar', A. V. On differentiable operator-conformal mappings. (Russian) **(81k:32002)**
Cegrell, Urban Relations between removable singularity sets for plurisubharmonic functions and positive, closed (1,1)-currents. **(81g:32013)**
Davidov, Johann T. Bounded families of holomorphic mappings between complex manifolds. **(81c:32047)**
Elgueta, Mammel Extension to strictly pseudoconvex domains of functions holomorphic in a submanifold in general position and C^∞ up to the boundary. **(81f:32034)**

32D25 Non-Archimedean function theory

- Bosch, S.** (with Dwork, B.; Robba, Philippe) Un théorème de prolongement pour des fonctions analytiques. **81m:32016**
Dwork, B. See **Bosch, S.**; et al., **81m:32016**
Robba, Philippe See **Bosch, S.**; et al., **81m:32016**

32D99 None of the above, but in this section

- Mazurek, M.** Some properties of extremal functions. **81d:32026**
Zobin, N. M. (with Zobina, V. G.) Interpolation in spaces of holomorphic functions. (Russian) **81b:32004**
Zobina, V. G. See **Zobin, N. M.**, **81b:32004**

32Exx Holomorphic convexity

32E05 Holomorphically convex complex spaces, reduction theory

- Berg, Gunnar** On 2-dimensional Cousin-I spaces. **81c:32017**
Diederich, Klaus (with Sibony, Nessim) Strange complex structures on Euclidean space. **81b:32005**
Fornaess, John Erik The Levi problem in Stein spaces. **81m:32017**
 (with Narasimhan, Raghavan) The Levi problem on complex spaces with singularities. **81f:32020**
Forster, O. Nicht-abelsche Cohomologie in der komplexen Analysis. **81h:32021**
Kajiwara, Joji (with Takase, Masahito) Steinitude des domaines à cohomologie nulle dans un produit de deux tores complexes de dimension un. **81d:32027**
Koyanagi, Ryohel L'exemple de Fornæss d'une suite de variétés de Stein. **81c:32029**
Narasimhan, Raghavan See **Fornaess, John Erik**, **81f:32020**
Pourcin, Geneviève Fibrés holomorphes dont la base et la fibre sont des espaces de Stein. **81d:32028**
Sibony, Nessim See **Diederich, Klaus**, **81b:32005**
Skoda, Henri Fibrés holomorphes à base et à fibre de Stein. **81f:32021**
Takase, Masahito See **Kajiwara, Joji**, **81d:32027**
Villani, Vitorio Increasing sequences of Stein manifolds. (Italian. English summary) **81c:32030**
Watanabe, Kiyoshi Domains in Grassmann manifolds with vanishing cohomology groups. **81m:32018**

secondary classifications:

- Demailly, Jean-Pierre** Un exemple de fibré holomorphe non de Stein à fibre C^2 ayant pour base le disque ou le plan. **(81m:32036)**
Kahalo, Winfried Holomorphe semi-Fredholmfunktionen ohne komplementierte Kerne bzw. Bilder. **(81b:47017)**
Raimondo, Mario (with Silva, Alessandro) The cohomology of an open subspace of a Stein space. **(81i:32011)**
Sadullaev, A. The operator $(dd^c u)^n$ and condenser capacities. (Russian) **(81h:32024)**
Silva, Alessandro See **Raimondo, Mario**, **(81i:32011)**
Ueda, Tetsuo Pseudoconvex domains over Grassmann manifolds. **(81i:32014)**

32E15 Runge pairs

32E20 Polynomial convexity

- Golovin, V. M.** Polynomial convexity and sets of finite linear measure in C^A . (Russian) **81c:32031**
Kanten, Volker Schlichte Linearkombinationen holomorpher Funktionen aus $H(D)$. **81c:32032**
Pielinski, Wiesław On some polynomial conditions of the type of Leja in C^n . **81m:32019**
 Sur les conditions polynomiales du type Leja dans C^n . (English summary) **81a:32012**
Sadullaev, A. P -regularity of sets in C^n . **81m:32020**

secondary classifications:

- Hakim, Monique** (with Sibony, Nessim) Spectre de $A(\Omega)$ pour des domaines bornés faiblement pseudoconvexes réguliers. (English summary) **(81g:46072)**
O'Farrell, Anthony G. (with Preskenis, Kenneth J.) Approximation of polynomials in two complex variables. **(81c:32018)**
Preskenis, Kenneth J. See **O'Farrell, Anthony G.**, **(81c:32018)**
Sibony, Nessim See **Hakim, Monique**, **(81g:46072)**

32E25 Algebras of holomorphic functions [See also 30H05, 46J10, 46J15.]

- Chammat, Jacques** (with Chollet, Anne-Marie) Ensemble de zéros, ensembles pics et d'interpolation pour $A(D)$. **81c:32033**
Chollet, Anne-Marie See **Chammat, Jacques**, **81c:32033**
Jarnicki, M. Holomorphic functions with bounded growth on Riemann domains over C^n . **81c:32034**
Pflug, Peter Šilov boundaries of smooth pseudoconvex domains. **81d:32029**
Weinstock, Barnett M. On a theorem of A. Sakai. **81m:32021**
Zaamenskii, S. V. A geometric criterion of strong linear convexity. (Russian) **81k:32015**

secondary classifications:

- Baĭkjan, B. T.** Subalgebras of codimension 1 (noncommutative case). (Russian. Armenian and English summaries) **(81d:46059)**
Chee, P. S. Universal functions in several complex variables. **(81c:32014)**
Gamelin, T. W. ★Uniform algebras and Jensen measures. **(81a:46058)**
 Jensen measures, subharmonicity, and the conjugation operation. **(81f:46061)**
 (with Sibony, Nessim) Subharmonicity for uniform algebras. **(81f:46062)**
Globevnik, J. On the ranges of analytic maps in infinite dimensions. **(81g:46027)**
Hakim, Monique (with Sibony, Nessim) Spectre de $A(\Omega)$ pour des domaines bornés faiblement pseudoconvexes réguliers. (English summary) **(81g:46072)**
Isidro, J. M. Characterization of the spectrum of some topological algebras of holomorphic functions. **(81m:46075)**
Morales, Luzia Amália Theorems of the Cartan-Thullen type and Runge domains. **(81i:46052)**
Narmanija, V. G. Some subalgebras of topological algebras. (Russian) **(81a:46053)**
Rudin, Walter Peak-interpolation sets for the ball algebra. **(81d:32010)**
Senĭkin, V. N. Subharmonic functions and the analytic structure in the space of maximal ideals of a uniform algebra. (Russian) **(81m:46077)**
Sibony, Nessim See **Gamelin, T. W.**, **(81f:46062)** and **Hakim, Monique**, **(81g:46072)**
Zame, William R. Existence, uniqueness and continuity of functional calculus homomorphisms. **(81i:46065)**

32E27 Krasner-Tate algebras, etc. (algebras of holomorphic functions over non-Archimedean fields)

- Chollet, Anne-Marie** Ensembles de zéros, ensembles pics pour $A(D)$ et $A^\infty(D)$. **81j:32019**

secondary classifications:

- Escassut, Alain** Problèmes de transcendance p -adique. **(81i:10039)**
 The ultrametric spectral theory. **(81i:46098)**

32E30 Holomorphic and polynomial approximation

- Ahern, Patrick** (with Schneider, Robert) Holomorphic Lipschitz functions in pseudoconvex domains. **81f:32022**
Alexander, H. A. Carleman theorem for curves in C^n . **81f:32023**
Aupetit, Bernard L'approximation des fonctions de plusieurs variables complexes. **81c:32035**
Chammat, Jacques (with Chollet, Anne-Marie) Ensembles pics pour $A^\infty(D)$. (English summary) **81c:32036**
Chollet, Anne-Marie See **Chammat, Jacques**, **81c:32036**
Gowrisankaran, Kohur Negligible sets and good functions on polydisks. (French summary) **81a:32013**
Hakim, Monique (with Sibony, Nessim) Ensembles pics pour $A^\infty(\bar{D})$. **81j:32012**
Krantz, Steven G. Geometric Lipschitz spaces and applications to complex function theory and nilpotent groups. **81j:32020**
Mujica, Jorge The Oka-Weil theorem in locally convex spaces with the approximation property. **81a:32014**
O'Farrell, Anthony G. (with Preskenis, Kenneth J.) Approximation of polynomials in two complex variables. **81c:32018**
Preskenis, Kenneth J. See **O'Farrell, Anthony G.**, **81c:32018**
Sakai, Akira Uniform approximation in several complex variables. **81c:32019**
Schneider, Robert See **Ahern, Patrick**, **81f:32022**
Sibony, Nessim See **Hakim, Monique**, **81j:32012**

secondary classifications:

- Airapetjan, R. A.** Boundary properties of an integral of Cauchy-Leray type in piecewise smooth domains in C^n , and some applications. (Russian) **(81h:32004)**
Bierstedt, Klaus-Dieter A remark on vector-valued approximation on compact sets, approximation on product sets, and the approximation property. **(81h:46019)**
Colombeau, J. F. (with Meise, Reinhold; Perrot, B.) A density result in spaces of Silva holomorphic mappings. **(81i:46050)**
Ferrier, Jean-Pierre Théorie spectrale et approximation par des fonctions d'une infinité de variables. **(81i:46058)**
Globevnik, J. On interpolation by analytic maps in infinite dimensions. **(81m:46062)**
Isidro, J. M. Characterization of the spectrum of some topological algebras of holomorphic functions. **(81m:46075)**
Meise, Reinhold See **Colombeau, J. F.**; et al., **(81i:46050)**
Nasif, M. Gončarov polynomials generating functions of two complex variables. **(81c:32003)**
Perrot, B. See **Colombeau, J. F.**; et al., **(81i:46050)**
Weinstock, Barnett M. On a theorem of A. Sakai. **(81m:32021)**
Zobin, N. M. (with Zobina, V. G.) Interpolation in spaces of holomorphic functions. (Russian) **(81b:32004)**
Zobina, V. G. See **Zobin, N. M.**, **(81b:32004)**

32E35 Global boundary behavior of holomorphic functions

- Krantz, Steven G. Boundary values and estimates for holomorphic functions of several complex variables. **81g:32012**
 Webster, S. M. On mapping an n -ball into an $(n+1)$ -ball in complex spaces. **81h:32022**

32E99 None of the above, but in this section

secondary classifications:

- Laurent, Yves Deuxième microlocalisation. (81j:58071)

32Fxx Geometric convexity

32F05 Plurisubharmonic functions and generalizations [See also 31C10]

- Anandam, Victor An invitation to plurisubharmonic functions. **81a:32015**
 Anilbert, T. Caractérisation des restrictions à la sphère des fonctions pluriharmoniques par des opérateurs différentiels. **81c:32037**
 Bedford, Eric (with Taylor, B. A.) Two applications of a nonlinear integral formula to analytic functions. **81c:32020**
 Extremal plurisubharmonic functions and pluripolar sets in \mathbb{C}^2 . **81j:32021**
 An example of a plurisubharmonic measure on the unit ball in \mathbb{C}^2 . **81j:32013**
 Cegrell, Urban Relations between removable singularity sets for plurisubharmonic functions and positive, closed (1,1)-currents. **81g:32013**
 Some characterizations of L -regular points. **81m:32022**
 Debiard, Amédée (with Gaveau, Bernard) Balayage des fonctions plurisousharmoniques de Rickart et applications à certaines algèbres de fonctions holomorphes. (English summary) **81c:32021**
 Gaveau, Bernard See Debiard, Amédée, **81c:32021**
 Khelmas, Christer O. La transformation de Legendre partielle pour les fonctions plurisousharmoniques. **81d:32030**
 Lawrynowicz, Julian On a class of capacities on complex manifolds endowed with an Hermitian structure and their relation to elliptic and hyperbolic quasiconformal mappings. **81h:32023**
 Lelong, Pierre Fonctions plurisousharmoniques à croissance minimale et notions capacitaires dans \mathbb{C}^n . **81c:32038**
 Okada, Masami Intégrales de volume et fonction maximale pour les fonctions plurisousharmoniques dans la boule. (English summary) **81c:32039**
 Pflug, Peter Ein Fortsetzungssatz für plurisubharmonische Funktionen über reell-2-kodimensionale Flächen. **81c:32022**
 Sadullaev, A. The operator $(dd^c)^k$ and condenser capacities. (Russian) **81h:32024**
 Locally and globally $\bar{\partial}$ -regular compacta in \mathbb{C}^n . (Russian) **81h:32025**
 Siciak, Josef Extremal plurisubharmonic functions in \mathbb{C}^n . **81h:32026**
 Taylor, B. A. See Bedford, Eric, **81c:32020**

secondary classifications:

- Carpentier, Philippe Sur la formule de Jensen et les zéros des fonctions holomorphes dans le polydisque. (81c:32004)
 (Dehen, Danièle) See Malliavin, Paul, (81d:60077)
 Laville, Guy Mesures pluriharmoniques et mesures orthogonales dans le groupe d'Heisenberg. (81k:32008a)
 Malliavin, Paul ★ Géométrie différentielle stochastique. (French) [Stochastic differential geometry] (81d:60077)
 Mazurek, M. Some properties of extremal functions. (81d:32026)
 (Michel, Dominique) See Malliavin, Paul, (81d:60077)
 Nevrraz, Philippe Approximation of plurisubharmonic functions. (81j:46070)
 Okada, Masami Intégrales de volume et fonction maximale pour les fonctions plurisousharmoniques dans la boule. (English summary) (81k:31013)
 Schwartz, Laurent Martingales conformes sur une variété analytique complexe. (81m:60083)
 Skoda, Henri Integral methods and zeros of holomorphic functions. (81g:32005)

32F10 q -convexity, q -concavity

- Ermine, Jean-Louis Images directes à supports propres dans le cas d'un morphisme fortement q -concave. **81m:32023**
 Sumi, Osamu Theorems on holomorphic bisectional curvature and pseudoconvexity on Kähler manifolds. **81k:32016**
 Vo Van Tan The "restrum" problem for l -convex spaces. **81c:32023**

secondary classifications:

- Ancona, V. (with Vo Van Tan) Embedding Moishezon spaces into l -convex spaces. (81f:32011)
 Andreotti, Aldo (with Bănică, Constantin) Twisted sheaves on complex spaces. (Italian summary) (81m:32013)
 (with Bănică, Constantin) Twisted sheaves on complex spaces. (81h:32010)
 Bănică, Constantin See Andreotti, Aldo, (81h:32010) and Andreotti, Aldo, (81m:32013)
 Gilligan, B. (with Huckleberry, Alan T.) Remarks on k -Leviflat complex manifolds. (81g:32015)
 Gindikin, S. G. (with Henkin, G. M.) Complex integral geometry and Penrose transformation for solutions of Maxwell equations. (Russian. English summary) (81m:78007)
 Henkin, G. M. See Gindikin, S. G., (81m:78007)
 Huckleberry, Alan T. See Gilligan, B., (81g:32015)
 Lai, Tung Sheng See Nakano, Shigeo, (81f:32041)
 Nakano, Shigeo (with Lai, Tung Sheng) Vector bundle version of Ohsawa's finiteness theorems. (81f:32041)
 Ohsawa, Takeo Finiteness theorems on weakly l -complete manifolds. (81g:32024)
 Vo Van Tan See Ancona, V., (81f:32011)

32F15 Pseudoconvex domains

- Bykov, S. N. Geometric properties of the boundary of a domain of holomorphy. (Russian) **81c:32040**
 Diederich, Klas (with Fornæss, John Erik) Proper holomorphic maps onto pseudoconvex domains with real-analytic boundary. **81h:32027**
 Elgueta, Manuel Extension to strictly pseudoconvex domains of functions holomorphic in a submanifold in general position and C^∞ up to the boundary. **81f:32024**
 Fornæss, John Erik See Diederich, Klas, **81h:32027**
 Fridman, B. L. Imbedding of a strictly pseudoconvex domain in a polyhedron. (Russian) **81c:32041**
 Kasten, Volker Über die Vererbung der Pseudokonvexität bei Projektionen. **81m:32024**
 Range, R. Michael The Carathéodory metric and holomorphic maps on a class of weakly pseudoconvex domains. **81j:32022**
 Rosay, Jean-Pierre Sur une caractérisation de la boule parmi les domaines de \mathbb{C}^n par son groupe d'automorphismes. (English summary) **81a:32016**
 Saito, Tetsuo Hölder estimates on higher derivatives of the solution for $\bar{\partial}$ -equation with C^k -data in strongly pseudoconvex domain. **81g:32014**
 Ueda, Tetsuo Pseudoconvex domains over Grassmann manifolds. **81i:32014**

secondary classifications:

- Barth, Theodore J. Convex domains and Kobayashi hyperbolicity. (81g:32018)
 Bell, Steve (with Ligočka, Ewa) A simplification and extension of Fefferman's theorem on biholomorphic mappings. (81i:32017)
 Greiner, Peter C. A fundamental solution for a nonelliptic partial differential operator. (81g:35096)
 Ligočka, Ewa See Bell, Steve, (81i:32017)
 Narasimhan, Ramabhadran Domains of holomorphy and pseudoconvex domains. (81h:32019)
 Pflug, Peter Silov boundaries of smooth pseudoconvex domains. (81d:32029)
 Pinčuk, S. I. Holomorphic inequivalence of certain classes of domains in \mathbb{C}^n . (Russian) (81f:32034)
 Varopoulos, Nicolas B.M.O. functions in complex analysis. (81c:32018)
 Watanabe, Kiyoshi Domains in Grassmann manifolds with vanishing cohomology groups. (81m:32018)

32F20 Geometric results on $\bar{\partial}$ -Neumann problems [See also 35N15]

- Andreotti, Aldo (with Nacinovich, Mauro) Convexité analytique. **81a:32017a**
 (with Nacinovich, Mauro) Convexité analytique. II. Résultats positifs. **81a:32017b**
 (with Nacinovich, Mauro) Analytic convexity. **81m:32025**
 Dadoč, Jiri (with Harvey, Reese) The fundamental solution for the Kohn-Laplacian $\bar{\partial}$ on the sphere in \mathbb{C}^n . **81f:32025**
 Derridj, M. Régularité pour $\bar{\partial}$ dans quelques domaines faiblement pseudo-convexes. **81m:32026**
 Inégalités a priori et estimation sous-elliptique pour $\bar{\partial}$ dans des ouverts nonpseudoconvexes. **81j:32023**
 Harvey, Reese (with Polking, John) Fundamental solutions in complex analysis. I. The Cauchy-Riemann operator. **81c:32042a**
 (with Polking, John) Fundamental solutions in complex analysis. II. The induced Cauchy-Riemann operator. **81c:32042b**
 See also Dadoč, Jiri, **81f:32025**
 Laville, Guy Deux remarques sur les équations de Cauchy-Riemann tangentielles. (English summary) **81c:32024**
 Nacinovich, Mauro See Andreotti, Aldo, **81a:32017a**; Andreotti, Aldo, **81a:32017b** and Andreotti, Aldo, **81m:32025**
 Polking, John See Harvey, Reese, **81c:32042a** and Harvey, Reese, **81c:32042b**
 Tarhanov, N. N. Formula and estimates for solutions of the equation $du=f$ in a domain and on the boundary of a domain. (Russian) **81k:32017**
 Wagner, Jacques Estimations en norme L^p pour $\bar{\partial}=f$ dans un domaine fortement pseudoconvexe. (English summary) **81d:32031**

secondary classifications:

- Ahern, Patrick (with Schneider, Robert) Holomorphic Lipschitz functions in pseudoconvex domains. (81f:32022)
 de Bartolomeis, Paolo (with Landucci, Mario) Régularisation au bord et problème de Cauchy pour l'opérateur $\bar{\partial}$ à croissance de "type Hardy". (81c:32013)
 Burns, Daniel M., Jr. Global behavior of some tangential Cauchy-Riemann equations. (81d:32032)
 (Dehen, Danièle) See Malliavin, Paul, (81d:60077)
 Eskin, Michael (with Shamir, Eliahu) Systèmes différentiels surdéterminés qui sont elliptiques dans un domaine. (English summary) (81k:35117)
 Henkin, G. M. See Sergeev, A. G., (81k:35118)
 Kashiwara, Masaki (with Kawai, Takahiro) Some applications of boundary value problems for elliptic systems of linear differential equations. (81k:35062)
 Kawai, Takahiro See Kashiwara, Masaki, (81k:35062)
 Krantz, Steven G. Analysis on the Heisenberg group and estimates for functions in Hardy classes of several complex variables. (81g:32007)
 Landucci, Mario See de Bartolomeis, Paolo, (81c:32013)
 Le Hung Son Fortsetzungssätze vom Hartogschen Typ für verallgemeinerte analytische Funktionen mehrerer komplexer Variabler. (81m:32015)
 Malliavin, Paul ★ Géométrie différentielle stochastique. (French) [Stochastic differential geometry] (81d:60077)
 (Michel, Dominique) See Malliavin, Paul, (81d:60077)
 Schneider, Robert See Ahern, Patrick, (81f:32022)
 Sergeev, A. G. (with Henkin, G. M.) Uniform estimates of the solutions of the $\bar{\partial}$ -equation in pseudoconvex polyhedra. (Russian) (81k:35118)
 Shamir, Eliahu See Eskin, Michael, (81k:35117)

- Tartakoff, David S. The local real analyticity of solutions to \square_b and the $\bar{\partial}$ -Neumann problem. (81k:35033)
 Zampieri, Giuseppe On some conjectures by E. De Giorgi relative to the global resolvability of overdetermined systems of differential equations. (81m:35100)

32F25 Real submanifolds in complex manifolds

- Burns, Daniel M., Jr. Global behavior of some tangential Cauchy-Riemann equations. 81d:32032
 Harris, Gary Alvin Higher order analogues to the tangential Cauchy-Riemann equations for real submanifolds of \mathbb{C}^n with C.R. singularity. 81e:32043

secondary classifications:

- Bejancu, Aurel On the geometry of leaves on a CR-submanifold. (81j:53026)
 Dadok, Jiri (with Harvey, Reese) The fundamental solution for the Kohn-Laplacian \square_b on the sphere in \mathbb{C}^n . (81f:32025)
 Diederich, Klas (with Forness, John Erik) Biholomorphic mappings between certain real analytic domains in \mathbb{C}^2 . (81a:32029)
 Forness, John Erik See Diederich, Klas, (81a:32029)
 Greene, Robert E. (with Krantz, Steven G.) The stability of the Bergman kernel and the geometry of the Bergman metric. (81m:32030)
 Hakim, Monique (with Sibony, Nessim) Ensembles pics pour $A^\infty(\bar{D})$. (81i:32012)
 Harvey, Reese See Dadok, Jiri, (81f:32025)
 Henkin, G. M. Analytic representation for CR-functions on submanifolds of codimension 2 in \mathbb{C}^n . (81k:32006)
 An analytic representation for CR-functions on manifolds of codimension 2 in \mathbb{C}^n . (Russian) (81d:32007)
 Johnson, David S. Biholomorphic equivalence in a class of graph domains. (81e:32025)
 Krantz, Steven G. Smoothness of harmonic and holomorphic functions. (81c:32020)
 See also Greene, Robert E., (81m:32030)
 Luk, Hing Sum Affine connections and defining functions of real hypersurfaces in \mathbb{C}^n . (81j:53037)
 Moser, Jürgen K. The holomorphic equivalence of real hypersurfaces. (81d:32016)
 Rea, Claudio Approximated Cauchy problem for linear, first order, overdetermined systems. (Italian summary) (81a:35071)
 Sibony, Nessim See Hakim, Monique, (81i:32012)
 Webster, S. M. On mapping an n -ball into an $(n+1)$ -ball in complex spaces. (81k:32022)

32F30 Pseudoconvex manifolds

- Bloom, Thomas On the contact between complex manifolds and real hypersurfaces in \mathbb{C}^n . 81k:32018
 Fukushima, Yukio (with Kazama, Hideaki) Note on cohomology groups of the product space $\mathbb{C}^n \times P_{n-1}$. 81j:32024
 Gilligan, B. (with Huckleberry, Alan T.) Remarks on k -Leviflat complex manifolds. 81g:32015
 Huckleberry, Alan T. See Gilligan, B., 81g:32015
 Kazama, Hideaki See Fukushima, Yukio, 81j:32024

secondary classifications:

- Abdelkader, Osama Annulation de la cohomologie d'une variété kählérienne faiblement 1-complète à valeur dans un fibré vectoriel holomorphe semi-positif. (English summary) (81e:32054)
 Dadok, Jiri (with Harvey, Reese) The fundamental solution for the Kohn-Laplacian \square_b on the sphere in \mathbb{C}^n . (81f:32025)
 Harvey, Reese See Dadok, Jiri, (81f:32025)
 Kajiwara, Joji (with Takase, Masahito) Steinitude des domaines à cohomologie nulle dans un produit de deux tores complexes de dimension un. (81d:32027)
 Nishihara, Masaru On injective analytic mappings of infinite-dimensional complex manifolds. (81c:58010)
 Sakamoto, Kunio (with Takemura, Yoshiya) On almost contact structures belonging to a CR-structure. (81f:53014)
 Takase, Masahito See Kajiwara, Joji, (81d:32027)
 Takemura, Yoshiya See Sakamoto, Kunio, (81f:53014)
 Vo Van Tan Vanishing theorems and Kählerity for strongly pseudoconvex manifolds. (81f:32042)
 Webster, S. M. Biholomorphic mappings and the Bergman kernel off the diagonal. (81e:32029)
 Wessely, Rüdiger Verselle Deformationen holomorpher Vektorraumbündel auf streng 1-konvexen komplexen Mannigfaltigkeiten. (81e:32026)

32F99 None of the above, but in this section

- Štehrník, A. I. Some differential properties of holomorphic mappings. (Russian) 81k:32019
 Stoll, Wilhelm The characterization of strictly parabolic manifolds. 81h:32028
 Zelins'kii, Ju. B. On connection between properties of a compact set in \mathbb{C}^n and its conjugate set. 81b:32015

secondary classifications:

- Averous, G. (with Deschamps, A.) Estimées uniformes des solutions. (See 80j:53064)
 Barth, Theodore J. Convex domains and Kobayashi hyperbolicity. (81g:32018)
 Deschamps, A. See Averous, G., (See 80j:53064)
 Greene, Robert E. (with Wu, Hung Hsi) ★Function theory on manifolds which possess a pole. (81a:53002)
 Lerner, D. E. (with Sommers, Paul) Introduction. (81f:00009)
 Lles, Otto Projections and liftings of exact holomorphic forms. Applications to the

Cauchy problem. (81e:35025)

- Pinčuk, S. I. Biholomorphic inequivalence of bounded domains with smooth and piecewise-smooth boundaries. (Russian) (81e:32051)
 Sommers, Paul See Lerner, D. E., (81f:00009)
 Wu, Hung Hsi See Greene, Robert E., (81a:53002)
 Znamenskii, S. V. A geometric criterion of strong linear convexity. (Russian) (81k:32015)

32Gxx Deformations of analytic structures

- 32G05 Deformations of complex structures [See also 13D10, 16A58, 58H10, 58H15.]

- Burns, Daniel M., Jr. Some background and examples in deformation theory. 81e:32044
 Campana, Frédéric Coréduction algébrique d'un espace analytique kählérien compact. (English summary) 81d:32033
 Grauert, Hans Deformation komplexer Strukturen. 81h:32029
 Hatvany, Csaba On the deformations of flat analytic homomorphisms. 81h:32006
 Johnson, David S. Biholomorphic equivalence in a class of graph domains. 81e:32025
 Kato, Masahide Compact complex manifolds containing "global" spherical shells. I. 81j:32025
 Wessely, Rüdiger Verselle Deformationen holomorpher Vektorraumbündel auf streng 1-konvexen komplexen Mannigfaltigkeiten. 81e:32026
 Yoshihara, Hisao On deformations of hyperelliptic manifolds. 81i:32016

secondary classifications:

- Akso, Kazuo Complex structures on $S^{2p+1} \times S^{2q+1}$ with algebraic codimension 1 and their small deformations. (81m:32034)
 Duchamp, T. (with Kalka, M.) Deformation theory and stability for holomorphic foliations. (81m:57019)
 Forster, O. Nicht-abelsche Cohomologie in der komplexen Analysis. (81h:32021)
 Kalka, M. See Duchamp, T., (81m:57019)
 Yamada, Akira Precise variational formulas for abelian differentials. (81i:30078)

32G07 Deformations of special (e.g. CR) structures

- Kiremidjian, Garo K. A direct extension method for CR structures. 81k:32020
 Nakano, Shigeo See Omoto, Hideo, 81h:32030
 Omoto, Hideo (with Nakano, Shigeo) Local deformations of isolated singularities associated with negative line bundles over abelian varieties. 81h:32030

secondary classifications:

- Girbau, Joan Vanishing theorems for complex analytic foliate manifolds. (81j:58090)

32G10 Deformations of submanifolds and subspaces

- Akahori, Takao (with Namba, Makoto) Examples of obstructed holomorphic maps. 81a:32018
 Kalka, M. Deformation of submanifolds of strongly negatively curved manifolds. 81k:32021
 Namba, Makoto See Akahori, Takao, 81a:32018

secondary classifications:

- Burns, Daniel M., Jr. Some background and examples in deformation theory. (81e:32044)
 Mok, Ngaiming Le problème de Serre pour les surfaces de Riemann. (English summary) (81e:32035)

32G11 Deformations of singularities

- Barlet, Daniel Développement asymptotique des fonctions obtenues par intégration sur les fibres. (English summary) 81m:32027
 Karras, Ulrich On equisingular deformations of cone-like surface singularities. 81f:32026
 Laufer, Henry B. Ambient deformations for exceptional sets in two-manifolds. 81f:32027

32G13 Analytic moduli problems [For algebraic moduli problems, see 14D20.]

- Campana, Frédéric Algébricité et compacité dans les espaces de cycles. (English summary) 81e:32045
 Décomposition algébrique d'un espace kählérien compact. (English summary) 81f:32028
 Fujiki, Akira Some results in the classification theory of compact complex manifolds in \mathbb{C} . 81h:32022
 Usui, Sampel Deformation and local Torelli theorem for certain surfaces of general type. 81b:32007

secondary classifications:

- Gordon, Gerald Leonard On a simplicial complex associated to the monodromy. (81j:32017)
 Hartshorne, Robin Algebraic vector bundles on projective spaces: a problem list. (81m:14014)
 Kawamata, Yujiro The Kodaira dimension of certain fiber spaces. (81e:14022)
 Madore, J. (with Richard, J. L.; Stora, R.) $F = \bullet \bullet F$, a review. (81d:81055)
 Okonek, Christian (with Schneider, Michael; Spindler, Heinz) ★Vector bundles on complex projective spaces. (81b:14001)

- Richard, J. L. See Madore, J.; et al., (81d:81055)
 Schneider, Michael See Okonek, Christian; et al., (81b:14001)
 Spindler, Heinz See Okonek, Christian; et al., (81b:14001)
 Stora, R. See Madore, J.; et al., (81d:81055)
 Ueno, Kenji Classification of algebraic manifolds. (81d:14011)

32G15 Moduli of Riemann surfaces, Teichmüller theory [See also 14H15, 30Fxx.]

- Gardiner, Frederick P. Three-holed spheres and Riemann surfaces. 81b:32008,
 On the variation of Teichmüller's metric. 81m:32028
 Kerckhoff, Steven P. The asymptotic geometry of Teichmüller space. 81f:32029
 Kra, Irwin On the Carathéodory metric on the universal Teichmüller space. 81g:32016
 Lin, Fu Lai Conformal symmetric embeddings of compact Riemann surfaces. 81c:32046
 Porter, R. Michael Computation of a boundary point of Teichmüller space. 81j:32026
 Sato, Hiroki On augmented Schottky spaces and automorphic forms. I. 81b:32009
 Seppälä, Mika Bers' Teichmüller spaces of Klein surfaces. 81b:32010
 Taniguchi, Masahiko Remarks on topologies associated with squeezing a nondividing
 loop on compact Riemann surfaces. 81b:32011
 Wason, Judith C. On the boundary of reduced Teichmüller space. 81e:32027

secondary classifications:

- (Bachawski, Ken) See Brylinski, Jean-Luc, (81f:14014)
 Bowen, Rufus Hausdorff dimension of quasicircles. (81g:57023)
 Brylinski, Jean-Luc Propriétés de ramification à l'infini du groupe modulaire de
 Teichmüller. (81f:14014)
 Fegan, H. D. Theta functions and modular jets. (81f:10032)
 Gardiner, Frederick P. On relative Teichmüller spaces and a globalization principle in
 Riemann surface theory. (81g:30057)
 Kerckhoff, Steven P. The Nielsen realization problem. (81i:57002)
 Kuriyayashi, Akihazu (with Sekita, Eitaro) On a family of Riemann surfaces. I.
 (81i:14018)
 (with Moriya, Ryoji) On the Weierstrass points of Riemann surfaces defined by
 the equation $Y^3 = X(X-t_1)(X-t_2)$. (81j:14016)
 Ljan, G. M. On the Teichmüller space and the Poincaré Θ -operator. (Russian)
 (81e:30054)
 Marden, Albert Geometric relations between homeomorphic Riemann surfaces.
 (81m:30047)
 Moriya, Ryoji See Kuriyayashi, Akihazu, (81j:14016)
 Sekita, Eitaro See Kuriyayashi, Akihazu, (81i:14018)
 Singerman, David Symmetries and pseudosymmetries of hyperelliptic surfaces.
 (81c:30080)
 Tjaria, A. N. Generalization of the Weierstrass P -function and the moduli variety of
 marked Riemann surfaces. (Russian) (81b:14015)
 Yamada, Akira Precise variational formulas for abelian differentials. (81i:30078)
 Yamamoto, Hiro-o Constructibility and geometric finiteness of Kleinian groups.
 (81k:30068)

32G20 Period matrices [See also 14H05.]

- Shiga, Hironori One attempt to the $K3$ modular function f . 81e:32028

secondary classifications:

- Chakiris, Kenneth N. Counterexamples to global Torelli for certain simply connected
 surfaces. (81d:14021)
 Leotenga, Eduard Homogeneous spaces associated to certain semi-universal
 deformations. (81j:14006)
 Markušević, A. I. ★ Введение в классическую теорию абелевых функций. (Russian)
 [Introduction to the classical theory of abelian functions] (81c:14024)
 Scherk, John On the monodromy theorem for isolated hypersurface singularities.
 (81k:14009)
 Usui, Sampel Local Torelli theorem for some nonsingular weighted complete
 intersections. (81m:14026)
 Zucker, Steven M. Hodge theory with degenerating coefficients. L_2 cohomology in the
 Poincaré metric. (81a:14002)

32G99 None of the above, but in this section

- Takijima, Kunio (with Tomaru, Tadashi) Quotient analytic spaces. 81f:32030
 Tomaru, Tadashi See Takijima, Kunio, 81f:32030

32Hxx Holomorphic mappings

32H05 Representative domains

32H10 Bergman kernel function

- Boss, Harold P. A geometric characterization of the ball and the Bochner-Martinelli
 kernel. 81m:32029
 Donoghue, William F., Jr. Reproducing kernel spaces and analytic continuation.
 81j:32027
 Greene, Robert E. (with Krantz, Steven G.) The stability of the Bergman kernel and the
 geometry of the Bergman metric. 81m:32030
 Krantz, Steven G. See Greene, Robert E., 81m:32030
 Sun, Ji Guang Singular integral equations on a closed smooth manifold. (Chinese.
 English summary) 81f:32031
 Webster, S. M. Biholomorphic mappings and the Bergman kernel off the diagonal.
 81e:32029

secondary classifications:

- Ahern, Patrick (with Schneider, Robert) Holomorphic Lipschitz functions in
 pseudoconvex domains. (81f:32022)
 Saitoh, Saburo Integral transform by the product of two Szegő kernel functions.
 (81j:30023)
 Schneider, Robert See Ahern, Patrick, (81f:32022)

32H15 Invariant metrics and pseudodistances

- Bell, Steve (with Ligočka, Ewa) A simplification and extension of Fefferman's theorem
 on biholomorphic mappings. 81i:32017
 Harris, Lawrence A. Analytic invariants and the Schwarz-Pick inequality. 81j:32028
 Ilariuonov, M. A. Kobayashi pseudometric on a fiber space. (Russian. English summary)
 81g:32017
 Ligočka, Ewa See Bell, Steve, 81i:32017
 Simha, R. R. Extension theorems in hyperbolic analysis. 81b:32012
 Sitaramaya, M. Hyperbolic complex manifolds. 81b:32013

secondary classifications:

- Kra, Irwin On the Carathéodory metric on the universal Teichmüller space. (81g:32016)
 Markowitz, Michael J. Holomorphic affine and projective connections of hyperbolic
 type. (81d:32017)
 Range, R. Michael The Carathéodory metric and holomorphic maps on a class of
 weakly pseudoconvex domains. (81j:32022)

32H20 Hyperbolic complex manifolds

- Azukawa, Kazuo (with Suzuki, Masaaki) Some examples of algebraic degeneracy and
 hyperbolic manifolds. 81j:32029
 Barth, Theodore J. Convex domains and Kobayashi hyperbolicity. 81g:32018
 Davidor, Johann T. Bounded families of holomorphic mappings between complex
 manifolds. 81c:32047
 Green, Mark L. Holomorphic maps to complex tori. 81c:32048
 Sitaramaya, M. Differential-geometric study of a class of hypersurfaces in a complex
 torus. 81f:32032
 Suzuki, Masaaki See Azukawa, Kazuo, 81j:32029
 Urata, Toshio Holomorphic mappings into taut complex analytic spaces. 81d:32034

secondary classifications:

- Greene, Robert E. (with Wu, Hung Hsi) ★ Function theory on manifolds which possess
 a pole. (81a:53002)
 Ilariuonov, M. A. Kobayashi pseudometric on a fiber space. (Russian. English summary)
 (81g:32017)
 Lin, V. Ja. See Zaidenberg, M. G., (81j:32018)
 Markowitz, Michael J. Holomorphic affine and projective connections of hyperbolic
 type. (81d:32017)
 Wu, Hung Hsi See Greene, Robert E., (81a:53002)
 Zaidenberg, M. G. (with Lin, V. Ja.) Bounded domains of holomorphy that cannot be
 blown down holomorphically. (Russian) (81j:32018)

32H25 Picard type theorems and generalizations (For function-theoretic
 properties, see 32A22.)

- Kallman, Š. I. Holomorphic endomorphisms of the complex Weyl chambers of the series
 D_n . (Russian) 81g:32019
 Sadullaev, A. Defect divisors in the sense of Valiron. (Russian) 81a:32019
 Sibony, Nessim (with Wong, Pit Mann) Capacité et propriétés globales d'ensembles
 analytiques. 81d:32035
 Vitter, Al On the growth of cohomology classes on smooth affine varieties. 81f:32033
 Wong, Pit Mann See Sibony, Nessim, 81d:32035

secondary classifications:

- Bedford, Eric (with Taylor, B. A.) Two applications of a nonlinear integral formula to
 analytic functions. (81e:32020)
 Taylor, B. A. See Bedford, Eric, (81e:32020)

32H30 Value distribution theory in higher dimensions (For
 function-theoretic properties, see 32A22.)

- Demilly, Jean-Pierre Fonctions holomorphes à croissance polynomiale sur la surface
 d'équation $e^x + e^y = 1$. (English summary) 81c:32049
 Fujimoto, Hirotaka Remarks to the uniqueness problem of meromorphic maps into
 $P^N(\mathbb{C})$, I, II. 81c:32030
 Remarks to the uniqueness problem of meromorphic maps into $P^N(\mathbb{C})$, III.
 81c:32031
 Gruman, Lawrence La distribution des valeurs des applications holomorphes. 81h:32032
 Value distribution for holomorphic maps in \mathbb{C}^n . 81h:32031
 (Martinelli, Enzo) See Tung, Chia Chi, 81d:32036
 (Scorza Dragoni, Giuseppe) See Tung, Chia Chi, 81d:32036
 (Segre, Beniamino) See Tung, Chia Chi, 81d:32036
 Sundaraman, D. Value distribution in several complex variables. 81c:32050
 Tung, Chia Chi The first main theorem of value distribution on complex spaces. (Italian
 summary) 81d:32036

secondary classifications:

- Degtjar', P. V. See Sadullaev, A., (81m:32003)
 Molzon, Robert E. The Bezout problem for a special class of functions. (81a:32003)

- Sadullaev, A. (with Degtiar', P. V.) Approximation divisors and other questions of multidimensional Nevanlinna theory. (Russian) (81m:32003)
 Toledo, Domingo Harmonic maps from surfaces to certain Kaehler manifolds. (81d:58030)

32H99 None of the above, but in this section

- Bedford, Eric (with Burns, Daniel M., Jr.) Holomorphic mapping of annuli in C^n and the associated extremal function. 81b:32014
 Burns, Daniel M., Jr. See Bedford, Eric, 81b:32014
 Cih, A. K. See Južakov, A. P., 81i:32019
 Dautov, S. A. (with Hudaiberganov, G.) A Carathéodory-Fejér problem in C^n . (Russian) 81m:32031
 Diederich, Klas (with Fornæss, John Erik) Biholomorphic mappings between certain real analytic domains in C^n . 81a:32020
 Farns, James John Segre families and real hypersurfaces. 81i:32018
 Fornæss, John Erik See Diederich, Klas, 81a:32020
 Hudaiberganov, G. See Dautov, S. A., 81m:32031
 Južakov, A. P. (with Cih, A. K.) The multiplicity of the zero of a system of holomorphic functions. (Russian) 81i:32019
 Kawamata, Yujiro On Bloch's conjecture. 81j:32030
 Kexel, Werner Zariski-Offenheit von eigentlichen, flachen holomorphen Abbildungen. 81e:32032
 Nirenberg, Louis (with Webster, S. M.; Yang, Paul C.) Local boundary regularity of holomorphic mappings. 81g:32020
 Noguchi, Junjiro Supplement to: "Holomorphic curves in algebraic varieties" (Hiroshima Math. J. 7 (1977), no. 3, 833-853; MR 58 #28688). 81m:32032
 Pinčuk, S. I. Biholomorphic inequality of bounded domains with smooth and piecewise-smooth boundaries. (Russian) 81c:32051
 Holomorphic inequality of certain classes of domains in C^n . (Russian) 81f:32034
 Shih, Mou Hsiang Bolzano's theorem in several complex variables. 81f:32035
 Webster, S. M. See Nirenberg, Louis; et al., 81g:32020
 Wong, B. A maximum principle on Clifford torus and nonexistence of proper holomorphic map from the ball to polydisc. 81k:32023
 Yang, Paul C. See Nirenberg, Louis; et al., 81g:32020

secondary classifications:

- Chen, Kuo Tsai Poles of maps into $P_n(C)$ and Whitehead integrals. (81k:57020)
 Chen, Zhi Hua (with Cheng, Shiu Yuen; Lu, Qi Keng) On the Schwarz lemma for complete Kähler manifolds. (81f:53050)
 Cheng, Shiu Yuen See Chen, Zhi Hua; et al., (81f:53050)
 Diederich, Klas (with Fornæss, John Erik) Proper holomorphic maps onto pseudoconvex domains with real-analytic boundary. (81h:32027)
 Eells, James (with Lemaire, L.) On the construction of harmonic and holomorphic maps between surfaces. (81k:58030)
 Eliashberg, Ja. M. Complex structures on a manifold with boundary. (Russian) (81f:32019)
 Fornæss, John Erik See Diederich, Klas, (81h:32027)
 Fridman, B. L. Imbedding of a strictly pseudoconvex domain in a polyhedron. (Russian) (81c:32041)
 Griffiths, Phillip A. Some problems in complex analytic geometry with growth conditions. (81d:32018)
 Hirschowitz, André Les deux types de méromorphie différent. (81h:32018)
 Johnson, David S. Biholomorphic equivalence in a class of graph domains. (81e:32025)
 Lemaire, L. See Eells, James, (81k:58030)
 Lu, Qi Keng See Chen, Zhi Hua; et al., (81f:53050)
 Quine, J. R. (with Yang, Paul C.) A noncompact version of Plücker's second equation. (81h:14096)
 Sadullaev, A. Schwarz's lemma for circular domains and its application. (Russian) (81g:32001)
 Shu, Yum Tong Some remarks on the complex-analyticity of harmonic maps.
 The complex-analyticity of harmonic maps and the strong rigidity of compact Kähler manifolds. (81j:53061)
 Stoll, Wilhelm The characterization of strictly parabolic manifolds. (81h:32028)
 Webster, S. M. Biholomorphic mappings and the Bergman kernel off the diagonal. (81e:32029)
 On mapping an n -ball into an $(n+1)$ -ball in complex spaces. (81h:32022)
 Yang, Paul C. See Quine, J. R., (81h:14096)

32Jxx Compact analytic spaces (For Riemann surfaces, see 14Hxx, 30Fxx.)

32J05 Compactification

- Suzuki, Masakazu Compactifications of $C \times C^n$ and $(C^n)^2$. 81f:32036

32J10 Algebraic dependence theorems

32J15 Compact surfaces

- Brenton, Lawrence On singular complex surfaces with negative canonical bundle, with applications to singular compactifications of C^2 and to 3-dimensional rational singularities. 81h:32033
 Chen, Bang-yen Some topological obstructions to Bochner-Kähler metrics and their applications. 81f:32037
 Kato, Masahide Compact complex surfaces containing global strongly pseudoconvex hypersurfaces. 81b:32015

- Kobayashi, Shoshichi (with Ochiai, Takushiro) Holomorphic projective structures on compact complex surfaces. 81g:32021
 Mizuhara, Akira On compact complex analytic surfaces admitting nonvanishing holomorphic vector fields. 81f:32038
 Nikulin, V. V. Finite groups of automorphisms of Kählerian $K3$ surfaces. (Russian) 81e:32033
 Ochiai, Takushiro See Kobayashi, Shoshichi, 81g:32021
 Tsuchihashi, Hiroyasu Compactifications of the moduli spaces of hyperelliptic surfaces. 81f:32039

secondary classifications:

- Catanesi, Fabrizio The moduli and the global period mapping of surfaces with $K^2 = p_g = 1$: a counterexample to the global Torelli problem. (81k:14027)
 Gauduchon, Paul La topologie d'une surface hermitienne d'Einstein. (English summary) (81e:53052)
 Kato, Masahide Compact complex manifolds containing "global" spherical shells. I. (81j:32025)
 Mandelbaum, Richard Four-dimensional topology: an introduction. (81j:57001)
 (Miyake, Katsuya) See Oda, Tadao, (81e:14001)
 Oda, Tadao ★Torus embeddings and applications. (81e:14001)

32J20 Algebraicity criteria

- Ancona, V. Espaces de Moisézon relatifs et algébrisation des modifications analytiques. 81g:32022

secondary classifications:

- Bănică, Constantin (with Ueno, Kenji) On the Hilbert-Samuel polynomial in complex analytic geometry. (81k:32011)
 Campana, Frédéric Algèbre et compacité dans les espaces de cycles. (English summary) (81e:32045)
 Ueno, Kenji See Bănică, Constantin, (81k:32011)

32J25 Transcendental methods of algebraic geometry [See also 14C30]

- Morrow, James A. (with Rossi, Hugo) Canonical embeddings. 81m:32033
 Rossi, Hugo See Morrow, James A., 81m:32033

secondary classifications:

- Fay, John On the Riemann-Jacobi formula. (81g:14020)
 Fujita, Takao On the hyperplane section principle of Lefschetz. (81e:14005)
 Sitaramaya, M. Differential-geometric study of a class of hypersurfaces in a complex torus. (81f:32032)

32J99 None of the above, but in this section

- Akao, Kazuo Complex structures on $S^{2p+1} \times S^{2q+1}$ with algebraic codimension 1 and their small deformations. 81m:32034
 Gaveau, Bernard Fonctions et diviseurs sur une variété nilpotente non kählérienne. (English summary) 81e:32034
 Newstead, P. E. Some subvarieties of Grassmannians of codimension 3. 81i:32026
 A note on the homology groups of varieties defined by s equations. 81i:32026
 A note on the Picard groups of varieties defined by s equations. 81i:32026
 Sommese, Andrew John Complex subspaces of homogeneous complex manifolds. I. Transplanting theorems. 81h:32034

secondary classifications:

- Dekkers, W. The matrix of a connection having regular singularities on a vector bundle of rank 2 on $P^1(C)$. (81m:14008)
 Dodson, Bruce A new example of quasiabelian varieties, and its characterization. (Italian summary) (81h:14024)
 Kato, Masahide Compact differentiable 4-folds with quaternionic structures. (81h:53037)
 Lamotte, Klaus The topology of complex projective varieties after S. Lefschetz. (81m:14019)
 Ueno, Kenji Classification of algebraic manifolds. (81d:14011)
 Urata, Toshio Holomorphic mappings into taut complex analytic spaces. (81d:32034)
 Yoshihara, Hisao On deformations of hyperelliptic manifolds. (81i:32016)

32Kxx Generalizations of analytic spaces (should also be assigned at least one other classification number in this section)

32K05 Banach analytic spaces [See also 58Bxx.]

secondary classifications:

- Reichard, Klaus Roots of differentiable functions of one real variable. (81j:26005)
 Reiffen, Hans-Jörg Metrische Größen in C^q -Räumen. (English summary) (81h:58012)

32K10 Non-Archimedean analytic spaces

- Bartenwerfer, Wolfgang Die erste "metrische" Kohomologiegruppe glatter affinoid Räume. 81a:32021
 Dochitoiu, Constantin p -adic Grassmann varieties. (Romanian. French summary) 81m:32035
 Fieseler, Karl-Heinz Zariski's main theorem in der nichtarchimedischen Funktionentheorie. 81a:32022

secondary classifications:

- Feneyrol-Perrin, Yvette Fonctions analytiques de plusieurs variables sur certains corps valués au sens de Krull. (English summary) (81a:12019)
 Gerritzen, Lothar Unbeschränkte Steinsche Gebiete von P_1 und nichtarchimedische automorphe Formen. (81h:10040)

32K15 Differentiable functions on analytic spaces, differentiable spaces [See also 58C25.]

secondary classifications:

- Guaraldo, Francesco Openness theorems for immersions of real analytic spaces. (Italian. English summary) (81i:46029)

32K99 None of the above, but in this section

secondary classifications:

- Noverraz, Philippe Sur la mesure gaussienne des ensembles polaires en dimension infinie. (81d:46054)

32Lxx Holomorphic fiber spaces [See also 55Rxx.]

32L05 Holomorphic fiber bundles and generalizations

- Campana, Frédéric Variations de fibrés vectoriels. Applications aux espaces de sections et aux diviseurs. 81f:32040
 Demailly, Jean-Pierre Un exemple de fibré holomorphe non de Stein à fibre C^2 ayant pour base le disque ou le plan. 81m:32036
 Isenberg, James A. (with Yassini, Philip B.) Twistor description of non-self-dual Yang-Mills field. 81g:32023
 Mok, Ngaiming Le problème de Serre pour les surfaces de Riemann. (English summary) 81e:32035
 Yasukin, Philip B. See Isenberg, James A., 81g:32023

secondary classifications:

- Cenk, Bohumil Residues of singularities of holomorphic foliations. (81i:57020)
 Gauduchon, Paul Variétés de type surjectif et variétés partiellement parallélisables. (81i:53051)
 Kasue, Atsushi (with Ochiai, Takushiro) On holomorphic sections with slow growth of Hermitian line bundles on certain Kähler manifolds with a pole. (81k:53059)
 Ochiai, Takushiro See Kasue, Atsushi, (81k:53059)
 Schneider, Michael Holomorphic vector bundles on P_n . (81g:14010)
 Chernklassen semi-stabiler Vektorraumbündel vom Rang 3 auf dem komplex-projektiven Raum. (81f:14006)
 Sebastiani, Marcos Sur les points fixes des automorphismes des fibrés avec singularités. (81j:32011)
 Shimomura, Shun On a Pfaffian system containing parameters. (81h:58009)
 Skoda, Henri Fibrés holomorphes à base et à fibre de Stein. (81f:32021)
 Tognoli, Alberto Une remarque sur les fibrés vectoriels analytiques et de Nash. (English summary) (81f:32010)
 Wessoly, Rüdiger Verselle Deformationen holomorpher Vektorraumbündel auf streng 1-konvexen komplexen Mannigfaltigkeiten. (81e:32026)
 Zinchenko, I. L. The structure of asymptotically stable invariant sets of periodic complex analytic systems of differential equations. (Russian. English summary) (81f:34011)

32L10 Sheaves and cohomology of sections of holomorphic vector bundles, general results [See also 18F20, 55N30.]

- Akyildiz, Ersan Vector fields and equivariant bundles. 81c:32052
 Campbell, P. Projective geometry, Lagrangian subspaces, and twistor theory. 81c:32053
 Elencwajg, Georges (with Forster, O.) Bounding cohomology groups of vector bundles on P_n . 81h:32035
 Forster, O. See Elencwajg, Georges, 81h:32035
 Lai, Tung Sheng See Nakano, Shigeo, 81f:32041
 Lax, R. F. On images and inverse images of Weierstrass points. 81a:32023
 Nakano, Shigeo (with Lai, Tung Sheng) Vector bundle version of Ohsawa's finiteness theorems. 81f:32041

secondary classifications:

- Bourguignon, Jean Pierre Sur la deuxième conjecture de Calabi. (See 80j:53064)
 Fujita, Takao On semipositive line bundles. (81m:14013)
 Hartshorne, Robin Algebraic vector bundles on projective spaces: a problem list. (81m:14014)
 Houghton, Lane Palmer ★Twistors and particles. (81e:81173)
 Some new contour integral formulae. (81c:83032)
 Jones, Richard Sheaves in physics—twistor theory. (81i:83038)
 Oprea, Vasile The d'' -characteristic classes of the complex vector bundles. (81g:53024)

32L15 Bundle convexity [See also 32F10.]

- Ohsawa, Takao Finiteness theorems on weakly 1-complete manifolds. 81g:32024

secondary classifications:

- Nakano, Shigeo See Omoto, Hideo, (81h:32030)
 Omoto, Hideo (with Nakano, Shigeo) Local deformations of isolated singularities associated with negative line bundles over abelian varieties. (81h:32030)

32L20 Vanishing theorems

- Abdelkader, Osama Annulation de la cohomologie d'une variété kählérienne faiblement 1-complète à valeur dans un fibré vectoriel holomorphe semi-positif. (English summary) 81c:32054
 Darko, Patrick W. Cohomology with bounds on polycylinders. (French summary) 81h:32036
 Lescaze, François Un résultat de type "Borel-Weil". (English summary) 81k:32024
 Vo Van Tan Vanishing theorems and Kählerity for strongly pseudoconvex manifolds. 81f:32042

secondary classifications:

- Forster, O. Nicht-abelsche Cohomologie in der komplexen Analysis. (81h:32021)
 Girbau, Joan Vanishing theorems and stability of complex analytic foliations. (81k:57023)
 Kobayashi, Shoshichi The first Chern class and holomorphic symmetric tensor fields. (81f:53053)
 Norimatsu, Yoshiki Kodaira vanishing theorem and Chern classes for ∂ -manifolds. (81h:32003)

32L99 None of the above, but in this section

- Miyajima, Kimio On the equivalence of embeddings (generalization of an example of Zappa). (Japanese) 81b:32016

secondary classifications:

- Christ, N. H. Self-dual Yang-Mills solutions. (81a:81051)
 Duchamp, T. (with Kalka, M.) Stability theorems for holomorphic foliations. (81f:57022)
 Kalka, M. See Duchamp, T., (81f:57022)
 Kitahara, Haruo Remarks on square-integrable basic cohomology spaces on a foliated Riemannian manifold. (81f:57024)
 Klarès, Bernard Classification topologique des n -uples de champs de vecteurs holomorphes commutatifs sur $P_{n+1}(C)$. (English summary) (81i:58033)
 Patton, C. M. Zero rest mass fields and the Bargmann complex structure. (81a:81143)
 Tran Huy Hoang Sur le feuilletage défini par une équation de Pfaff algébrique sur $P_n C$. (81f:58002)
 Zucker, Steven M. An example of L_2 cohomology and Hodge theory for noncompact manifolds. (81j:58004)

32Mxx Complex spaces with a group of automorphisms

32M05 Complex Lie groups, automorphism groups of complex spaces [See also 22E10.]

- Fujiki, Akira Fixed points of the actions on compact Kähler manifolds. 81c:32055
 Kinoshita, Takashi Analytic automorphisms and algebraic automorphisms of C^2 . 81a:32024
 Lieberman, David I. A Poincaré-Bendixson theorem for compact Kähler manifolds. 81c:32056
 Stachó, L. L. A short proof of the fact that biholomorphic automorphisms of the unit ball in certain L^p spaces are linear. 81e:32036

secondary classifications:

- Białynicki-Birula, Andrzej On action of $SL(2)$ on complete algebraic varieties. (81i:14031)
 Roasy, Jean-Pierre Sur une caractérisation de la boule parmi les domaines de C^n par son groupe d'automorphismes. (English summary) (81a:32016)
 Rothaus, O. S. Automorphisms of Siegel domains. (81k:32026)
 Takijima, Kunio (with Tomaru, Tadashi) Quotient analytic spaces. (81f:32030)
 Tomaru, Tadashi See Takijima, Kunio, (81f:32030)

32M10 Homogeneous complex manifolds [See also 14M17, 57T15.]

- Huckleberry, Alan T. (with Schumacher, G.) Holomorphic maps of generalized Iwasawa manifolds. 81a:32025
 (with Snow, D.) Pseudoconcave homogeneous manifolds. 81f:32043
 (with Oeljeklaus, Eberhard) Sur les espaces analytiques complexes presque homogènes. (English summary) 81c:32057
 (with Oeljeklaus, Eberhard) A characterization of complex homogeneous cones. 81h:32017
 Kimura, Tatsuo (with Muro, Masakazu) On some series of regular irreducible prehomogeneous vector spaces. 81c:32058
 Malyiev, F. M. Complete complex structures on homogeneous spaces of semisimple Lie groups. (Russian) 81g:32025
 Muro, Masakazu See Kimura, Tatsuo, 81c:32058
 Oeljeklaus, Eberhard See Huckleberry, Alan T., 81h:32017 and Huckleberry, Alan T., 81c:32057
 Pjasecki, V. S. Classification of convex cones of finite type and of rank three. (Russian) 81g:32026
 Schumacher, G. See Huckleberry, Alan T., 81a:32025
 Shiga, Kiyoshi (with Takeuchi, Shigeru) Equivariant fibrations of homogeneous complex manifolds. 81b:32018
 Snow, D. See Huckleberry, Alan T., 81f:32043
 Takeuchi, Shigeru Cohomological dimension of homogeneous spaces of complex Lie groups. II. 81h:32037
 See also Shiga, Kiyoshi, 81h:32018
 Tsuji, Tadashi On curvatures of homogeneous convex cones. 81g:32027

secondary classifications:

- Čekalov, I. V. Cohomology of generalized regular compact homogeneous spaces. (Russian. English summary) (81m:57034)
- Debiard, Amédée Fonction de Littlewood-Paley et dualité H_1 , BMO dans le cas de l'espace hermitien hyperbolique de C^n , $n > 1$. (English summary) (81c:32015)
- Gorbachev, V. V. The topological properties of compact homogeneous spaces. (81a:53048)
- Meschini, Mauro Isometries of regular homogeneous convex cones. (Italian. English summary) (81g:53038)
- Muro, Masakazu Some prehomogeneous vector spaces with relative invariants of degree four and the formula of the Fourier transforms. (81j:20064)
- Ogden, R. D. (with Vági, S.) Harmonic analysis of a nilpotent group and function theory of Siegel domains of type II. (81f:22016)
- Pressley, Andrew Decompositions of the space of loops on a Lie group. (81b:57037)
- Saito, Kyoji (with Yano, Tamaki; Sekiguchi, Jiro) On a certain generator system of the ring of invariants of a finite reflection group. (81g:20095)
- Sasaki, Takeshi Hyperbolic affine hyperspheres. (81e:53037)
- Sekiguchi, Jiro See Saito, Kyoji; et al. (81g:20095)
- Vági, S. See Ogden, R. D., (81f:22016)
- Yano, Tamaki See Saito, Kyoji; et al. (81g:20095)

32M15 Hermitian symmetric spaces, bounded symmetric domains [See also 22E10, 22E40, 53C35, 57T15.]

- Berezin, F. A. The connection between covariant and contravariant symbols of operators on classical complex symmetric spaces. (Russian) 81j:32031
- Berline, Nicole (with Vergne, Michèle) Équations de Hua et intégrales de Poisson. (English summary) 81c:32059
- D'Atri, J. E. Holomorphic sectional curvatures of bounded homogeneous domains and related questions. 81b:32019
- Debiard, Amédée Comparaison des espaces H^p géométrique et probabilistes au-dessus de l'espace hermitien hyperbolique. (English summary) 81f:32044
- (with Gaveau, Bernard) Une formule de Green locale pour un espace symétrique irréductible de rang 2. (English summary) 81k:32025
- Dorfmeister, J. Quasisymmetric Siegel domains and the automorphisms of homogeneous Siegel domains. 81g:32028
- Gaveau, Bernard See Debiard, Amédée, 81k:32025
- Johnson, Kenneth D. (with Korányi, Adam) The Hua operators on bounded symmetric domains of tube type. 81j:32032
- Kimura, Yoshio On the hypersurfaces of Hermitian symmetric spaces of compact type. II. 81m:32037
- Korányi, Adam Compactifications of symmetric spaces and harmonic functions. 81c:32037
- See also Johnson, Kenneth D., 81j:32032
- Lassalle, Michel Deux généralisations du "théorème des trois cercles" de Hadamard. 81g:32029
- Mumford, D. Hirzebruch's proportionality theorem in the noncompact case. 81a:32026
- Vergne, Michèle See Berline, Nicole, 81c:32059
- Xu, Yi Chao On the Bergman kernel function of homogeneous bounded domains. 81f:32045

secondary classifications:

- Berger, Charles A. (with Coburn, Lewis A.; Korányi, Adam) Opérateurs de Wiener-Hopf sur les sphères de Lie. (English summary) (81g:22018)
- Coburn, Lewis A. See Berger, Charles A.; et al., (81g:22018)
- Faulkner, John R. Dynkin diagrams for Lie triple systems. (81c:17021)
- Harris, Lawrence A. Analytic invariants and the Schwarz-Pick inequality. (81j:32028)
- Inoue, Toru Unitary representations and kernel functions associated with boundaries of a bounded symmetric domain. (81e:22017)
- Kashiwara, Masaki (with Vergne, Michèle) Functions on the Shilov boundary of the generalized half plane. (81e:22022)
- Korányi, Adam See Berger, Charles A.; et al., (81g:22018)
- Krivonozkov, S. G. (with Man'ko, V. I.) Coherent states and Bloch functions. (Russian summary) (81d:81031)
- Man'ko, V. I. See Krivonozkov, S. G., (81d:81031)
- Matsuki, Toshihiko The orbits of affine symmetric spaces under the action of minimal parabolic subgroups. (81a:53049)
- See also Ōshima, Toshio, (81f:53043)
- Ōshima, Toshio (with Matsuki, Toshihiko) Orbits on affine symmetric spaces under the action of the isotropy subgroups. (81f:53043)
- Vergne, Michèle See Kashiwara, Masaki, (81e:22022)
- Yacoubi, Atika L'inégalité de Hardy pour l'espace $H^1(SU(2))$. (81e:32006)

32M99 None of the above, but in this section

- Rothaus, O. S. Automorphisms of Siegel domains. 81k:32026
- Takijima, Kunio Quotients of $C^n - \{0\}$ by diagonal C^* -actions. 81g:32030

secondary classifications:

- Akao, Kazuo Complex structures on $S^{2p+1} \times S^{2q+1}$ with algebraic codimension 1 and their small deformations. (81m:32034)
- Kikkawa, Michihiko Remarks on solvability of Lie triple algebras. (81b:17008)
- Mabuchi, Toshiaki Equivariant embeddings of normal bundles of fixed point loci. (81f:14028)

32Nxx Automorphic functions [See also 10Dxx, 20H10, 22E40, 30F35.]

32N05 General theory of automorphic functions of several complex variables

Tsushima, Ryuji Hyperbolicity of quotients of bounded symmetric domains. 81m:32028

secondary classifications:

- Raghavan, S. Singular modular forms of degree s . (81c:10028)
- Shiga, Hironori One attempt to the $K3$ modular function I . (81e:32028)

32N10 Automorphic forms

- Chen, Su Shing On boundedness of integrable automorphic forms in C^n . 81h:32038
- Ljan, G. M. The kernel of the Poincaré θ -operator: the multidimensional case. (Russian) 81g:32031

secondary classifications:

- Maass, Hans Über eine Spezialschar von Modulformen zweiten Grades. II. (81a:10037)
- Über eine Spezialschar von Modulformen zweiten Grades. III. (81a:10038)
- Mumford, D. Hirzebruch's proportionality theorem in the noncompact case. (81a:32026)
- Rossi, Hugo Holomorphic actions of $Sp(n, \mathbb{R})$ with noncompact isotropy groups. (81k:22007)

32N15 Automorphic functions in symmetric domains

32N99 None of the above, but in this section

33-XX SPECIAL FUNCTIONS (33-XX deals with the properties of functions as functions. General systems of orthogonal functions are treated in 42C05. Expansions in orthogonal functions are treated in 42C10, 42C15.)

33-01 Elementary exposition, textbooks

- Ceitin, M. Ju. See Gradshteyn, I. S.; et al., 81g:33001
- Geronimus, Ju. V. See Gradshteyn, I. S.; et al., 81g:33001
- Gradshteyn, I. S. (with Ryžik, I. M.) ★Table of integrals, series, and products. 81g:33001
- (Jeffrey, Alan) See Gradshteyn, I. S.; et al., 81g:33001
- Mitrinović, Dragoslav S. ★Specijalne funkcije. (Serbo-Croatian) [Special functions] 81f:33001
- Ryžik, I. M. See Gradshteyn, I. S., 81g:33001

secondary classifications:

- (Abramowitz, Milton) See Handbook: Mathematical functions with formulas, graphs and mathematical tables, (81j:00014)
- (Ditkin, V. A.) See Handbook: Mathematical functions with formulas, graphs and mathematical tables, (81j:00014)
- (Karmazinaja, L. N.) See Handbook: Mathematical functions with formulas, graphs and mathematical tables, (81j:00014)
- (Stegun, Irene A.) See Handbook: Mathematical functions with formulas, graphs and mathematical tables, (81j:00014)

Handbook:

Mathematical functions with formulas, graphs and mathematical tables

- ★Справочник по специальным функциям с формулами, графиками и математическими таблицами. (Russian) [Handbook of mathematical functions with formulas, graphs and mathematical tables] (81j:00014)
- Mathematical functions ★Справочник по специальным функциям с формулами, графиками и математическими таблицами. (Russian) [Handbook of mathematical functions with formulas, graphs and mathematical tables] (81j:00014)

33-02 Advanced exposition (research surveys, monographs, etc.)

- Nikiforov, A. F. (with Uvarov, V. B.) ★Специальные функции математической физики. (Russian) [Special functions of mathematical physics] 81b:33001
- Uvarov, V. B. See Nikiforov, A. F., 81b:33001

33-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- Gray, Jeremy J. Olinde Rodrigues' paper of 1840 on transformation groups. (81m:01031)

33-04 Explicit machine computation and programs (not the theory of computation or programming)

33-06 Proceedings, conferences, etc.

33A10 Exponential and trigonometric functions

Roe, J. A characterization of the sine function. 81a:33001

secondary classifications:

- Burkhill, H. Sequences characterizing the sine function. (81k:26013)
 Pedersen, Paul Wulff Some approximations for trigonometrical functions. (German summary) (81g:65016)
 Terras, Rihó The determination of incomplete gamma functions through analytic integration. (81d:65010)

33A15 Gamma and beta functions

- Andrews, George E. (with Askey, Richard) Another q -extension of the beta function. 81j:33001
 Askey, Richard See Andrews, George E., 81j:33001
 Kelley, C. Stuart Accurate approximations to the polygamma functions. 81b:33002
 Monk, Daniel S. The q -gamma function for $q > 1$. 81f:33002

secondary classifications:

- McCullagh, Peter A rapidly convergent series for computing $\psi(x)$ and its derivatives. (81m:65028)
 Tretter, Marietta J. (with Walster, G. W.) Analytic subtraction applied to the incomplete gamma and beta functions. (81m:65029)
 Walster, G. W. See Tretter, Marietta J., (81m:65029)

33A20 Error function, probability integral

33A25 Elliptic functions and integrals

- Belykh, V. N. Calculation of complete elliptic integrals. (Russian) 81h:33001
 Parhomovskii, Ja. M. Approximate formulas for elliptic integrals and examples of their application to two problems of nonlinear statics of elastic beams. (Russian) 81h:33002

- Approximate formulas for elliptic integrals of the third kind. (Russian) 81b:33003
 Viennot, Gérard Une interprétation combinatoire des coefficients des développements en série entière des fonctions elliptiques de Jacobi. (English summary) 81h:33003

secondary classifications:

- Almkvist, Gert The arithmetic-geometric mean and the arc length of the ellipse. (Swedish. English summary) (81m:10046)
 Eder, E. Approximationen für die vollständigen elliptischen Normalintegrale erster, zweiter und dritter Gattung. (81f:65020)
 Langebartel, R. G. Fourier expansions of rational fractions of elliptic integrals and Jacobian elliptic functions. (81e:42008)
 Nikolov, I. N. An approximate method for determining the length of an ellipse. (Russian) (81i:51016)

33A30 Simple hypergeometric functions of one and several variables

- Aggarwala, Indira (with Goyal, A. N.) On generating functions for a generalized polynomial. 81k:33001
 Alan, Khursheed Bounds on the negative exponential function. 81e:33001
 Goyal, A. N. See Aggarwala, Indira, 81k:33001
 Jain, V. K. Some transformations of basic hypergeometric series and their applications. 81c:33001
 See also Verma, Arun, 81i:33004
 Joshi, C. M. (with Prajapat, M. L.) A triple integral transformation and certain hypergeometric expansions. 81a:33002
 Lavoie, J.-L. See Srivastava, Hari M.; et al., 81b:33006
 Lupu, M. (with Pascu, N.; Podaru, V.) On some classes of hypergeometrical functions which lead to conformal mapping. (See 81j:93006b)
 Mathur, B. L. On some results involving Lauricella functions. 81c:33002
 Maurya, R. P. See Prasad, Y. N., 81b:33005
 Pascu, N. See Lupu, M.; et al., (See 81j:93006b)
 Pathan, M. A. Certain formulas involving $F^{(3)}(x, y, z)$. 81b:33004
 On infinite series of Horn's function H_4 . 81e:33002
 Podaru, V. See Lupu, M.; et al., (See 81j:93006b)
 Prajapat, M. L. See Joshi, C. M., 81a:33002
 Prakash, Ved See Soni, S. L., 81b:33003
 Prasad, Y. N. (with Maurya, R. P.) Some finite integrals and Fourier sine series for the H -function of several complex variables. (Turkish summary) 81b:33005
 Ruver, Pet' K. Note on asymptotic properties of confluent hypergeometric functions. 81c:33001
 On the representation of analytic functions by means of confluent hypergeometric functions. 81d:33002

- Shah, Manilal Certain generalized formulas on Kampé de Fériet's functions. 81h:33004
 Sharan, G. P. On transformations of basic hypergeometric functions of three variables. 81j:33002
 Sharma, B. L. Bailey's formula for double series. 81c:33003
 Sharma, R. K. Applications of Bailey's formula. 81i:33001
 Srivastava, B. M. (with Singh, F.) Some new generating relations for generalized Horn functions. 81k:33002
 Shukla, D. P. Certain properties of the $B_2^{(q)}$ function. 81i:33002
 Singh, F. See Srivastava, B. M., 81k:33002
 Soni, S. L. (with Prakash, Ved) On some results involving a generalized function of two variables. I. 81i:33003
 Srivastava, Hari M. (with Lavoie, J.-L.; Tremblay, Richard) The Rodrigues type representations for a certain class of special functions. 81b:33006
 Tremblay, Richard See Srivastava, Hari M.; et al., 81b:33006
 Verma, Arun (with Jain, V. K.) Some summation formulae of basic hypergeometric series. 81i:33004

- Yoshida, Masahiko Euler integral transformations of hypergeometric functions of two variables. 81h:33005

secondary classifications:

- Campbell, L. Lorne Asymptotic and monotonicity properties of some confluent hypergeometric functions. (81e:41047)
 Chhabra, S. P. (with Joshi, B. K.) On an integral equation involving hypergeometric function of two arguments. (81k:45006)
 Chin, John C. See Wall, Frederick T.; et al., (81e:82011)
 Demkov, Ju. N. (with Komarov, I. V.) Hypergeometric particular solutions in the two-centre Coulomb problem. (Russian. English summary) (81a:81019)
 Holman, Wayne J., III Summation theorems for hypergeometric series in $U(n)$. (81g:22028)
 Isleris, Arish A note on Padé approximations and generalized hypergeometric functions. (81a:41028)
 Jain, V. K. See Verma, Arun, (81j:05024)
 Joshi, B. K. See Chhabra, S. P., (81k:45006)
 Kalnins, E. G. (with Manocha, H. L.; Miller, Willard, Jr.) The Lie theory of two-variable hypergeometric functions. (81c:33010)
 Komarov, I. V. See Demkov, Ju. N., (81a:81019)
 Koroblyna, V. A. Transformations of difference operators. (Russian) (81k:65140)
 Ljusternik, L. A. Particular cases of the homogeneous problem with linear connections. (Russian) (81i:60090)
 Manocha, H. L. See Kalnins, E. G.; et al., (81c:33010)
 Miller, Willard, Jr. See Kalnins, E. G.; et al., (81c:33010)
 Schmidt, Dieter Die Lösung der linearen Differentialgleichung 2. Ordnung um zwei einfache Singularitäten durch Reihen nach hypergeometrischen Funktionen. (81d:34007)
 Seitz, William A. See Wall, Frederick T.; et al., (81e:82011)
 Sevaria, K. S. Some theorems on Laplace and Varma transforms. (Hindi. English summary) (81g:44005)
 Sharma, B. L. Transformations of certain double series. (81j:40005)
 Singh, Raghuvaraj See Singh, U. P., (81h:33019)
 Singh, U. P. (with Singh, Raghuvaraj) Some expansions of the generalized polynomial $M_n(x, y)$. (81h:33019)
 Soto Vargas, C. W. Use of new identities between hypergeometric functions of several variables for the calculation of the matrix elements of relativistic electron-nucleus scattering processes. (Spanish) (81k:81109)
 Verma, Arun On identities of Rogers-Ramanujan type. (81i:65024)
 (with Jain, V. K.) Transformations between basic hypergeometric series on different bases and identities of Rogers-Ramanujan type. (81j:65024)
 Wall, Frederick T. (with Seitz, William A.; Chin, John C.) Orthogonal vector analyses of distributions of self-avoiding and limited order random walks on lattices. (81e:82011)

33A35 Generalized hypergeometric functions of one and several variables, (E -functions, G -functions, H -functions, etc.)

- Abidun, R. F. A. Some expansion formulae for Fox's H -function. 81k:33003
 Transformation formulae for Kampé de Fériet function. 81f:33003
 Agarwal, A. K. (with Manocha, H. L.) A new class of generating functions for generalized hypergeometric polynomials. 81k:33005
 Agrawal, R. K. A multiple integral involving the H -function of two variables. 81i:33006
 See Goyal, S. P., 81c:33005
 See also Goyal, S. P., 81i:33006
 Anandani, P. (with Singh, Nam Prasad) Some expansions for H -function in series involving Jacobi polynomials. 81k:33004
 (with Singh, Nam Prasad) Some inequalities for H -functions. II. 81k:33005
 Chaurasia, V. B. L. Some integrals associated with the H -function of several complex variables. 81i:33007
 Deshpande, V. L. Finite sum representations of partial derivatives of the H -function of two and more variables with respect to parameters. 81b:33007
 Partial derivatives of hypergeometric functions of two variables with respect to parameters. 81a:33003
 Fitchard, E. E. (with Franco, Victor) Differential properties of Meijer's G -function. 81k:33006
 Franco, Victor See Fitchard, E. E., 81k:33006
 Garg, O. P. See Mittal, P. K., 81b:33009
 Garg, R. S. Partial derivatives of the H -function of two variables with respect to parameters expressed as finite sums. 81c:33003
 Goyal, A. N. (with Jain, K. C.) On partial differential equations and generalised hypergeometric functions. (Hindi. English summary) 81e:33004
 Goyal, S. P. (with Agrawal, R. K.) A two-dimensional Neumann expansion for the H -function of two variables. 81i:33008
 (with Agrawal, R. K.) Basic series relations for the H -function of two variables. 81e:33005
 See also Gupta, K. C., 81b:33008 and Gupta, K. C., 81e:33006
 Gupta, Arjun K. Some identities in G -functions. 81i:33009
 Gupta, K. C. (with Goyal, S. P.) A unified summation formula for the H -function of two variables. 81c:33006
 (with Goyal, S. P.) Integrals involving the spheroidal, Mathieu and H -functions of two variables. (Hindi. English summary) 81b:33008
 Heading, J. Properties of some generalized hypergeometric functions governing coupling at transition points. 81e:33007
 Jain, K. C. See Goyal, A. N., 81c:33004
 Joshi, Geeta Bhakta A class of hypergeometric polynomials. 81k:33007
 Kalla, Shyam Lal See Saxena, Ram Kishore, 81a:33005
 Koul, C. L. See Rana, R. K., 81c:33010
 Manocha, H. L. See Agarwal, A. K., 81k:33005

- Mathur, B. L. Integration of certain H -functions of two variables with respect to their parameters. **81c:33008**
- Milne, Stephen C. Hypergeometric series well-poised in $SU(n)$ and a generalization of Biedenharn's G -functions. **81c:33010**
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- Gawronski, Wolfgang Asymptotic distribution of the zeros of power series. (**81c:30012**)
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- Maurya, R. P. See Prasad, Y. N., (**81b:33005**)
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- Znojil, M. Exact solution of the Schrödinger and Klein-Gordon equations for generalised Hulthén potentials. (**81m:81018**)

33A40 Cylindrical functions, Bessel functions

- Agrawal, S. R. (with Patel, C. M.) On the mean convergence of Dini series. (Italian summary) **81h:33008**
- Ahmed, S. (with Calogero, F.) On the zeros of Bessel functions. III. **81h:33009**
More on the zeros of Bessel functions. **81h:33010**
- Balazs, N. L. (with Pauli, Hans-Christian; Dabbousi, O. B.) Tables of Weyl fractional integrals for the Airy function. **81a:33010**
- Boyd, James N. (with Raychowdhury, P. N.) Fresnel integrals and improper integrals of Bessel functions. **81j:33007**
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- Case, K. M. Sum rules for zeros of polynomials. I, II. **81f:33006**
- Chen, Isaac I. H. Modified Hankel transforms and elliptic trigonometry. **81j:33008**
- Dabbousi, O. B. See Balazs, N. L.; et al., **81a:33010**
- Elbert, A. Concavity of the zeros of Bessel functions. **81d:33004**
- Friedrich, N. Zur Faktorisierung einiger Kerne, die bei Ausstrahlungsproblemen der Elektrodynamik und Aeroelastizität auftreten. **81j:33009**
- Glasser, M. L. A method for evaluating certain Bessel integrals. (German summary) **81a:33011**
- Kasperkovitz, P. Asymptotic approximations for modified Bessel functions. **81a:33012**
- Makal, Endre On zeros of Bessel functions. **81h:33011**
- Muldoon, M. E. An infinite system of equations characterizing the zero of Bessel functions. **81h:33012**
- Pain, Asutosh A new bilateral generating relation for generalized Bessel polynomials. **81h:33009**
- Patel, C. M. See Agrawal, S. R., **81h:33008**
- Pauli, Hans-Christian See Balazs, N. L.; et al., **81a:33010**
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- Toscano, Letterio Sur la somme d'une série de fonctions de Bessel. (English summary) **81f:33007**
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- Müller, C. (with Richberg, R.) Über die Radon-Transformation kreissymmetrischer Funktionen und ihre Beziehung zur Sommerfeldschen Theorie der Hankelfunktionen. (English summary) (**81i:44006**)
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33A45 Spherical functions (Legendre polynomials and functions, spherical harmonics), ultraspherical polynomials

- Bhattacharjya, Manoranjan A new type of generalised Legendre polynomial. **81h:33012**
- Borghese, F. (with Denti, P.; Toscano, G.; Sindoni, O. I.) An addition theorem for vector Helmholtz harmonics. **81m:33004**
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- Dumont, Dominique Étude combinatoire d'une suite de polynômes associés aux polynômes ultrasphériques. **81f:33008**
- Exton, Harold A basic Legendre equation. **81b:33013**
- Filter, Eckhard (with Steinborn, E. Otto) A matrix representation of the translation operator with respect to a basis set of exponentially declining functions. **81m:33006**
- Foht, O. S. Bounds for the derivatives of ultraspherical polynomials in the L_p ($1 < p < +\infty$) and C metrics. (Russian) **81b:33014**

Gatteschi, Luigi A new asymptotic representation of ultraspherical polynomials. (Italian. English summary) **81m:33007**

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- Goetheluck, Pierre Approximation sur la demi-droite des fonctions C^∞ à décroissance rapide dans les espaces L^p avec poids. (81j:42027)
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- Saff, E. B. (with Varga, Richard S.) The sharpness of Lorentz's theorem on incomplete polynomials. (81b:41048)
- Schwartz, Alan L. See Connett, William C., (81g:42027)
- (Senin, A. I.) See Haruth, Henning F., (81b:94014)
- Sharma, K. G. See Bochar, B. K., (81j:40013)
- Singh, Raghuvaraj See Singh, U. P., (81b:33019)
- Singh, S. D. See Srivastava, A. N.; et al., (81b:33013)
- Singh, S. N. See Srivastava, A. N.; et al., (81b:33013)
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- Srivastava, H. S. P. A generalized function of two variables and generalized associated Legendre functions. (81b:35042)
- Srivastava, Hari M. (with Lavoie, J.-L.; Tremblay, Richard) The Rodrigues type representations for a certain class of special functions. (81b:33006)
- Stolov, E. L. Asymptotic behavior of integrals with Jacobi polynomials and Clebsch-Gordan coefficients. (Russian) (81m:41034)
- Sturmer, A. H. P. Two complete systems of algebraic orthogonal functions over $(-\infty, +\infty)$. (81b:42074)
- Trebels, Walter See Gasper, George, (81e:42016)
- Tremblay, Richard See Srivastava, Hari M.; et al., (81b:33006)
- Varga, Richard S. See Saff, E. B., (81b:41048)
- Vela, P. R. (with Dale, P.) Determinants, their derivatives and nonlinear differential equations. (81f:15013)

33A70 Other special functions

- Agrawal, B. M. (with Kumar, Virendra) A q -expansion formula. 81b:33021
- Davis, A. W. Invariant polynomials with two matrix arguments, extending the zonal polynomials. 81d:33009
- Extol, Harold Basic Fourier series. 81e:33008
- Farrell, R. H. Calculation of complex zonal polynomials. 81d:33010
- Gazean, J. P. See Hage Hassan, H.; et al., 81g:33006a
- Grenet, G. See Hage Hassan, H.; et al., 81g:33006a
- Hage Hassan, H. (with Grenet, G.; Gazeau, J. P.; Kibler, Maurice R.) Formulae for

$$y_{lm}(r_1 \times r_2). \quad 81g:33006a$$

- Kibler, Maurice R. See Hage Hassan, H.; et al., 81g:33006a
- Kumar, Virendra See Agrawal, B. M., 81b:33021
- Leo, M. (with Leo, R. A.; Soliani, G.) Properties of a special function related to self-similar solutions of certain nonlinear wave equations. 81g:33007
- Leo, R. A. See Leo, M.; et al., 81g:33007
- Lu, Qi Keng The minimum value of the Q function. (Chinese) 81g:33008
- Pandey, R. N. See Singh, Ramji, 81a:33021
- Rashid, M. A. Simple derivation of a formula for $y_{lm}(r_1 \times r_2)$. 81g:33006b
- Sayer, F. P. The recurrence relation $(r+1)f_{r+1} = xf_r + (K-r+1)x^2f_{r-1}$. 81f:33016
- Sheffer, I. M. On a class $W[k, s; C_p]$ of polynomial sets. I. 81d:33011
- Singh, Amar Operational relations related to a function defined by a generalized Rodrigues formula. 81b:33018
- Singh, Raghuvaraj See Singh, U. P., 81b:33019
- Singh, Ramji (with Pandey, R. N.) Integral representation for the generalized polynomial $\tilde{R}_n(x, y)$. 81a:33021
- Singh, U. P. (with Singh, Raghuvaraj) Some expansions of the generalized polynomial $M_n(x, y)$. 81b:33019
- Sobolev, S. L. On the asymptotic behavior of Euler polynomials. (Russian) 81a:33022
- Soliani, G. See Leo, M.; et al., 81g:33007
- Srivastava, Rekha New generating functions for a class of polynomials. (Italian summary) 81c:33009

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- Arzanyh, I. S. (with Asadova, M. Ju.) Addition formulas for the powers of ordered harmonic polynomials. (Russian) (81k:31001)
- Asadova, M. Ju. See Arzanyh, I. S., (81k:31001)
- Bressoud, David M. A simple proof of Mehler's formula for q -Hermite polynomials. (81f:33009)
- Carlitz, Leonard A characterization of the Bernoulli and Euler polynomials. (81k:10020)
- D'Archangelo, James On the Whittaker differential equation and Laplace transforms. (81f:34004)
- Dehesa, Jesús S. Orthogonal polynomials in transport theories. (81m:82050)
- Goles, E. (with Olivos, J.) Comportement itératif des fonctions à multiseuil. (English summary) (81m:94032)
- Manocha, H. L. See Agarwal, A. K., (81b:33015)
- Marshall, Trevor W. On the sums of a family of Kapteyn series. (French summary) (81f:81099)
- Mascarello Rodino, Maria Certain special functions that arise in the study of hypoellipticity. (Italian. English summary) (81b:35035)
- Olivos, J. See Goles, E., (81m:94032)
- Prabhakar, T. R. (with Reva) An Appell cross-sequence suggested by the Bernoulli and Euler polynomials of general order. (81c:10018)
- Reva See Prabhakar, T. R., (81c:10018)
- Roman, Steven The algebra of formal series. III. Several variables. (81b:05023b)
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- Singh, S. N. See Srivastava, A. N., (81j:05018)
- Srivastava, A. N. (with Singh, S. N.) Generating functions for a new class of polynomials. (Hindi. English summary) (81j:05018)
- Verma, Arun A quadratic transformation of a basic hypergeometric series. (81f:33005)

33A75 Special functions and Lie groups [See also 22Exx, 43A80.]

- Kalnins, E. G. (with Manocha, H. L.; Miller, Willard, Jr.) The Lie theory of two-variable hypergeometric functions. 81c:33010
- (with Manocha, H. L.; Miller, Willard, Jr.) Transformation and reduction formulas for two-variable hypergeometric functions on the sphere S_p . 81m:33011
- Manocha, H. L. See Kalnins, E. G.; et al., 81c:33010 and Kalnins, E. G.; et al., 81m:33011
- Miller, Willard, Jr. See Kalnins, E. G.; et al., 81c:33010 and Kalnins, E. G.; et al., 81m:33011
- Raynal, Jacques On the definition and properties of generalized 6-j symbols. 81b:33022
- Stanton, Dennis Product formulas for q -Hahn polynomials. 81d:33012
- (Strasburger, Aleksander) See Wawrzyńczyk, Antoni, 81c:33011
- Wawrzyńczyk, Antoni ★ Współczesna teoria funkcji specjalnych. (Polish) [Contemporary theories of special functions] 81c:33011

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- Banazi, Lucien Représentations sphériques uniformément bornées des groupes de Lorentz. (81e:22012)
- Davis, A. W. Invariant polynomials with two matrix arguments, extending the zonal polynomials. (81d:33009)
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- ★ Special functions and linear representations of Lie groups. (81b:22002)
- El Cohen, A. Maximal operators on hyperboloids. (81j:43020)
- Farrell, R. H. Calculation of complex zonal polynomials. (81d:33010)
- Gózd, A. (with Szpikowski, S.) Complete and orthonormal solution of the five-dimensional spherical harmonic oscillator in Bohr-Mottelson collective internal coordinates. (81k:81105)
- Gross, Kenneth I. (with Holman, Wayne J., III; Kunze, Ray A.) A new class of Bessel functions and applications in harmonic analysis. (81h:22009)
- (with Holman, Wayne J., III) Matrix-valued special functions and representation theory of the conformal group. I. The generalized gamma function. (81d:22022)
- Holman, Wayne J., III See Gross, Kenneth I., (81d:22022) and Gross, Kenneth I.; et al., (81h:22009)
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- Matkano, V. F. Plancherel's formula for hyperboloids. (Russian) (81j:43023)
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- Sapiro, R. L. Special functions connected with representations of the group $SU(n)$ of class I relative to $SU(n-1)(n > 3)$. (See 80m:00006)
- Schneider, C. K. E. (with Wilson, Raj) Ladder operators of group matrix elements. (81f:22040)
- Stoler, E. L. Asymptotic behavior of integrals of Jacobi polynomials and Clebsch-Gordan coefficients. (Russian) (81m:41034)
- Szpitkowski, S. See Gózdzi, A., (81k:81105)
- Tellinier, R. Heisenberg manifolds and theta functions. (81d:22012)
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- Wilson, Raj See Schneider, C. K. E., (81f:22040)

33A99 Miscellaneous topics

- Basu, Dipak Kumar On the unification of a class of bilateral generating relations for special functions. 81m:33012
- Mathai, A. M. Some results on functions of matrix argument. 81f:33017

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- Schmidt, Dieter (with Wolf, Gerhard) A method of generating integral relations by the simultaneous separability of generalized Schrödinger equations. (81c:35019)
- Wolf, Gerhard See Schmidt, Dieter, (81c:35019)

34-XX ORDINARY DIFFERENTIAL EQUATIONS

34-01 Elementary exposition, textbooks

- Arnold, V. I. ★Gewöhnliche Differentialgleichungen. (German) [Ordinary differential equations] 81c:34001
- Behring, Fred See Heinhold, Josef, 81j:34001
- Berković, L. M. ★Преобразование обыкновенных линейных дифференциальных уравнений. (Russian) [Transformation of ordinary linear differential equations] 81f:34001
- Cronin-Scanlon, Jane ★Differential equations. 81f:34002
- DeTemple, Duane W. A geometric method of phase plane analysis. 81g:34001
- Heinhold, Josef (with Behring, Fred) ★Einführung in die Höhere Mathematik. Teil 3. (German) [Introduction to higher mathematics. Part 3] 81j:34001
- Kartalev, A. P. (with Rodzestvenskii, B. L.) ★Обыкновенные дифференциальные уравнения и основы вариационного исчисления. (Russian) [Ordinary differential equations and the foundations of the calculus of variations] 81h:34001
- Knutle, Helmut Ordinary differential equations of chemistry. 81c:34002
- Krall, Allan M. See Mills, Wendell; et al., 81g:34002
- (Mal, Brigitte) See Arnold, V. I., 81c:34001
- Mills, Wendell (with Weisfeiler, Boris; Krall, Allan M.) Discovering theorems with a computer: the case of $y' = \sin(xy)$. 81g:34002
- Mitrinović, Dragoslav S. ★Diferencijalne jednačine. (Serbo-Croatian) [Differential equations] 81f:34003
- Ross, Shepley L. ★Introduction to ordinary differential equations. 81a:34001
- Rodzestvenskii, B. L. See Kartalev, A. P., 81h:34001
- Steinikov, A. G. See Tihonov, A. N.; et al., 81f:34005
- Tihonov, A. N. (with Vasil'eva, A. B.; Svešnikov, A. G.) ★Дифференциальные уравнения. (Russian) [Differential equations] 81f:34005
- Vasil'eva, A. B. See Tihonov, A. N.; et al., 81f:34005
- Weisfeiler, Boris See Mills, Wendell; et al., 81g:34002

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- Andreev, A. F. ★Особые точки дифференциальных уравнений. (Russian) [Singular points of differential equations] (81j:34046)

34-02 Advanced exposition (research surveys, monographs, etc.)

- Ames, W. F. Nonlinear superposition for operator equations. 81k:34001
- (Browder, Felix E.) See Dollard, John D.; et al., 81c:34003
- Campbell, Stephen L. ★Singular systems of differential equations. 81g:34003
- Dollard, John D. (with Friedman, Charles N.) ★Product integration with applications to differential equations. 81c:34003
- Erugin, N. P. ★Книга для чтения по общему курсу дифференциальных уравнений. (Russian) [A reader for a general course in differential equations] 81f:34004a
- Revisions in Section 5, Chapter XIII of *A reader for a general course in differential equations*. (Russian) 81f:34004b
- Friedman, Charles N. See Dollard, John D., 81c:34003
- (Masani, Pesi Rustom) See Dollard, John D.; et al., 81c:34003

secondary classifications:

- Fučik, Svatopluk (with Kufner, Alois) ★Nonlinear differential equations. (81c:35001)
- Kolesov, Ju. S. (with Švitra, Donatas) ★Автоколебания в системах с запаздыванием. (Russian) [Self-oscillation in systems with lags] (81f:34071)
- Kufner, Alois See Fučik, Svatopluk, (81c:35001)
- Švitra, Donatas See Kolesov, Ju. S., (81f:34071)

34-03 Historical (must also be assigned at least one classification number from Section 01)

- Kečkić, Jovan D. Contribution of Professor D. S. Mitrinović to differential equations. 81f:34006
- (Mitrinović, Dragoslav S.) See Kečkić, Jovan D., 81f:34006

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- Deakin, Michael A. B. Euler's version of the Laplace transform. (81g:44001)
- (Hadamard, J.) See Picard, Charles-Émile, (81j:01049a)
- (Hervé, Michel) See Picard, Charles-Émile, (81j:01049a)
- (Leray, Jean) See Picard, Charles-Émile, (81j:01049a)
- Picard, Charles-Émile ★Œuvres de Ch.-É. Picard. Tome I. (French) [Works of Ch.-É. Picard. Vol. I] (81j:01049a)
- ★Œuvres de Ch.-É. Picard. Tome II. (French) [Works of Ch.-É. Picard. Vol. II] (81j:01049b)
- (Serre, Jean-Pierre) See Picard, Charles-Émile, (81j:01049a)
- Bibliography:
- Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)
- Biography:
- Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)

34-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

- Kirnickaja, È. F. Application of a computer for finding comitants of differential systems. (Russian) (81m:34061)

34-06 Proceedings, conferences, etc.

- (Ahmad, Shair) See Differential equations, 81c:34005
- (Grišak, Pavel) See Conference: College of Transport Engineering, 81j:34002
- (Grimm, L. J.) See Differential and integral equations, 81j:34003
- (Itegov, V. D.) See Theory of stability and its applications, 81h:34003
- (Iz, Antonio Fernandes) See Functional differential equations and bifurcation, 81j:34004
- (Keener, Marvin) See Differential equations, 81c:34005
- (Kisilewicz, Michał) See Functional differential systems and related topics, 81j:34005
- (Kolesov, Ju. S.) See Studies in stability and the theory of oscillations, 81a:34004 and Studies in stability and the theory of oscillations, 81c:34006
- (Lazer, Alan C.) See Differential equations, 81c:34005
- (Matrosov, V. M.) See Theory of stability and its applications, 81h:34003
- (Meyer, Richard E.) See Singular perturbations and asymptotics, 81m:34001
- (Mitropolskii, Ju. A.) See Asymptotic methods in the theory of nonlinear oscillations, 81a:34002 and Asymptotic methods of nonlinear mechanics, 81a:34003
- (Parter, Seymour V.) See Singular perturbations and asymptotics, 81m:34001
- (Plummer, O. R.) See Differential and integral equations, 81j:34003
- (Šarkovskii, O. M.) See Approximate and qualitative methods in the theory of differential and functional-differential equations, 81h:34001
- (Strygala, V. V.) See Approximate methods for investigating differential equations and their applications, 81c:34004
- (Tomskii, G. V.) See Questions of differential and integral equations and their applications, 81h:34002
- (Trimble, Selden Y.) See Differential and integral equations, 81j:34003
- (Zabrejko, P. P.) See Studies in stability and the theory of oscillations, 81a:34004
- All-Union Conference:
- Asymptotic Methods in Nonlinear Mechanics ★Асимптотические методы в теории нелинейных колебаний. (Russian) [Asymptotic methods in the theory of nonlinear oscillations] 81a:34002
- Approximate methods for investigating differential equations and their applications ★Приближенные методы исследования дифференциальных уравнений и их приложения. Вып. 4. (Russian) [Approximate methods for investigating differential equations and their applications. No. 4] 81c:34004
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- Asymptotic methods of nonlinear mechanics ★Асимптотические методы нелинейной механики. (Russian) [Asymptotic methods of nonlinear mechanics] 81a:34003
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- Błażejczko ★Functional differential systems and related topics. 81j:34005
- Conference:
- College of Transport Engineering ★6. Vedecká Konferencia Vysoké školy Dopravnej. (Slovak) [Sixth Scientific Conference of the College of Transport Engineering] 81j:34002
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- Kaciveli ★Асимптотические методы в теории нелинейных колебаний. (Russian) [Asymptotic methods in the theory of nonlinear oscillations] 81a:34002
- Madison, Wis. ★Singular perturbations and asymptotics. 81m:34001
- Nonlinear mechanics ★Асимптотические методы в теории нелинейных колебаний. (Russian) [Asymptotic methods in the theory of nonlinear oscillations] 81a:34002
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- Singular perturbations and asymptotics ★Singular perturbations and asymptotics. 81m:34001
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- (Uspenskii, S. V.) See Partial differential equations. (81a:35002)
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- Birth of N. G. Četaev ★Проблемы устойчивости движения, аналитической механики и управления движением. (Russian) [Problems of stability of motion, analytical mechanics and control of motion] (81c:93002)
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- Applied Mathematics ★Nonlinear oscillations in biology. (81a:92002)
- ### 34Axx General theory
- #### 34A05 Solutions in closed form, integration by quadratures, reduction of differential equations
- Dimitrovski, Dragan (with Ilievski, Borko) On the possibilities of generalization of the Lagrange method of variation of constants. (Macedonian. French summary) 81j:34006
- Ilievski, Borko See Dimitrovski, Dragan, 81j:34006
- Kard, P. One-dimensional wave equations that are solvable in Bessel functions. (Russian. English and Estonian summaries) 81f:34007
- Prikarpatskii, A. K. Riccati equations that are integrable in quadratures. (Russian) 81b:34002
- Sabata, H. A certain type of integrating factors for some single systems. 81j:34007
- Šapkarov, Ilja A. Polynome als partielle Integrale der normalen homogenen linearen Differentialgleichungssysteme. (Macedonian summary) 81d:34001
- Williams, Lloyd K. Some Abel equations. 81g:34004
- Wisniewski, Henryk On solving the system of n first-order ordinary linear differential equations (and the estimation of the solution). 81j:34008
- secondary classifications:
- Beckett, P. M. Combined natural- and forced-convection between parallel vertical walls. (81m:76038)
- Berković, L. M. (with Nečevski, M. L.) Transformation methods in nonlinear and non-steady-state problems of mechanics. (Russian) (81f:70023)
- Biswas, S. N. See Singh, Virendra; et al., (81c:81036)
- Datta, K. See Singh, Virendra; et al., (81c:81036)
- Kečević, Jovan D. On some classes of linear equations. II. (81b:39013)
- Nečevski, M. L. See Berković, L. M., (81f:70023)
- Rampal, Anita See Singh, Virendra; et al., (81c:81036)
- Singh, Virendra (with Rampal, Anita; Biswas, S. N.; Datta, K.) A class of exact solutions for doubly anharmonic oscillators. (81c:81036)
- Ziglin, S. L. Nonintegrability of the problem of the motion of four point vortices. (Russian) (81e:76021)
- #### 34A08 Equations not solved with respect to the highest-order derivative, singular solutions
- #### 34A10 Initial value problems: general existence and uniqueness theorems; continuous dependence of solutions on parameters, initial conditions and boundary conditions [See also 45D05.]
- Alshamali, J. G. See Arora, H. L., 81c:34001
- Arora, H. L. (with Alshamali, J. G.) Stability of differential equation of noninteger order through fixed point in the large. 81c:34001
- Bertolino, Milorad Remarques sur les solutions générales des équations différentielles. 81a:34005
- Binding, Paul The differential equation $\dot{x} = f \circ x$. 81c:34002
- Cazzani Neri, Maria Grazia A uniqueness theorem and properties of the solution of the Cauchy problem in the class of absolutely continuous functions of one variable. (Italian) 81j:34009
- Dolý, Ondřej See Tesárová, Zuzana, 81m:34002
- Flisowski, Andrzej Solutions of Liénard's equation. (Polish. Russian and English summaries) 81g:34005
- Himmelberg, C. J. (with Van Vleck, F. S.) On the topological triviality of solution sets. 81g:34006
- Inerbaev, M. S. The Cauchy problem for ordinary differential equations. (Russian) 81c:34007
- Lepins, A. Existence and continuous dependence of solutions of boundary value problems. (Russian) 81b:34004
- Magomedov, A. R. A theorem on the existence and uniqueness of solutions of linear differential equations with "maxima". (Russian. Azerbaijani and English summaries) 81j:34010
- Miyake, Masatake Remarks on the formulation of the Cauchy problem for general system of ordinary differential equations. 81f:34008
- Palamides, P. K. Kneser's type properties for Carathéodory differential equations. 81j:34011
- Pelant, Jaroslav A modification and comparison of Filippov and Viktorovskij generalized solutions. 81c:34003
- Ramankutty, P. Kamke's uniqueness theorem. 81i:34001
- Ronto, V. A. Determination of the initial values of the solutions of nonlinear boundary value problems by the method of continuation of the solution with respect to the

- parameter. (Russian) **81e:34008**
- Šmilov, A. H. A problem for differential equations. (Russian) **81f:34009**
- Tenčević, Zuzana (with Došlić, Ondrej) General uniqueness theorems for ordinary differential equations. **81m:34002**
- Van Vleck, F. S. See Himmelberg, C. J., **81g:34006**
- secondary classifications:
- Beddingfield, Neil Kenneth An initial value problem for a functional equation. (81g:39004)
- Browder, Felix E. See Dollard, John D.; et al., (81e:34003)
- Dollard, John D. (with Friedman, Charles N.) ★ Product integration with applications to differential equations. (81e:34003)
- Farshad, Parviz Analysis of the equations of renal network flows. (81f:92003)
- Friedman, Charles N. See Dollard, John D., (81e:34003)
- Gruber, S. I. A convolutional approach to initial value problems for equations with right invertible operators. (81f:47021)
- Klimko, A. S. (with Šmyrov, A. S.) Properties of optimal transfers in central fields. (Russian) (81e:70033)
- Lord, M. E. Existence, uniqueness and validation of parameter imbedding equations for nonlinear Fredholm integral equations. (81f:45001)
- (Masani, Pesi Rustom) See Dollard, John D.; et al., (81e:34003)
- Palamides, P. K. (with Sficas, Y. G.; Staikos, Vasilios Anast.) Asymptotic behavior of Carathéodory systems. Anti-Lyapunov method. (81g:34062)
- Pavlov, G. G. Differential equations for perturbed motion relative to the oscillating variables of the KS transformation. (81m:70022)
- Pittsner, Franz On the solution of linear integro-differential equations with degenerate kernels. (81f:45020)
- Pogachev, B. P. Application of the continuation method to the solution of nonlinear boundary value problems. (Russian) (81f:34024)
- Saito, Toshiya Solutions of $x'' = t^{a-1} - 2x^{1+a}$ with movable singularity. (81a:34031)
- Sficas, Y. G. See Palamides, P. K.; et al., (81g:34062)
- Šmyrov, A. S. See Klimko, A. S., (81e:70033)
- Staikos, Vasilios Anast. See Palamides, P. K.; et al., (81g:34062)
- Yeh, Chieh Chih On the existence and uniqueness of solutions of functional-differential equations. (81c:34058)

34A15 Initial value problems: continuation of solutions

- Fink, A. M. Pointwise inequalities and continuation of solutions of an n th order equation. **81j:34012**
- Havran, László On the continuation of solutions of differential equations by vector Lyapunov functions. **81h:34003**
- Petrova, O. M. See Zabrejko, P. P., **81h:34002**
- Zabrejko, P. P. (with Petrova, O. M.) Theorem on extension of bounded solutions for differential equations and the averaging principle. (Russian) **81h:34002**

secondary classifications:

- Retšip, L. Smooth reparametrization of differential equations. (Russian) (81d:34037)

34A20 Differential equations in the complex domain [See also 30D05.]

- Baldassarri, F. (with Dwork, B.) On second order linear differential equations with algebraic solutions. **81d:34002**
- Balser, W. (with Jurkat, W. B.; Lutz, D. A.) Birkhoff invariants and Stokes' multipliers for meromorphic linear differential equations. **81f:34010**
- Bank, Steven B. (with Kaufman, Robert P.) On the order of growth of meromorphic solutions of first-order differential equations. **81d:34003**
- Chalkley, Roger Analytic solutions of algebraic differential equations. **81k:34002**
- Čudnovsky, David V. Simplified Schlesinger's systems. **81d:34004**
- Čikilivili, A. R. Solution of the Schwarz equation at points where the difference of the roots of the defining equation is equal to an integer. (Russian, Georgian and English summaries) **81k:34003**
- Dwork, B. See Baldassarri, F., **81d:34002**
- Gromak, V. I. Single-parameter families of solutions of Painlevé equations. (Russian) **81a:34006**
- Hall, Leon M. Singular differential systems—how many solutions? **81m:34003**
- Hille, Einar Higher order Briot-Bouquet differential equations. **81k:34004**
- Remarks on Briot-Bouquet differential equations. I. **81g:34007**
- Some remarks on Briot-Bouquet differential equations. II. **81h:34003**
- Jurkat, W. B. See Balser, W.; et al., **81f:34010**
- Kakolov, A. P. The behavior of the roots of the equation $w_1(z) + \sigma w_1(z) = 0$. (Russian, English summary) **81h:34004**
- Kaufman, Robert P. See Bank, Steven B., **81d:34003**
- Knaib, Otto Eine Bemerkung zur lokalen Wertverteilung der Lösungen linearer Differentialgleichungen. (English summary) **81g:34008**
- Kondratenja, S. G. (with Linevič, V. G.) On the question of classes of first-order differential equations with stationary critical singular points. (Russian) **81g:34009**
- Linevič, V. G. See Kondratenja, S. G., **81g:34009**
- Lutz, D. A. An application of the theory of invariants of meromorphic differential equations. **81m:34004**
- See also Balser, W.; et al., **81f:34010**
- Markov, S. N. Sufficient conditions for absence of essentially singular points. (Russian) **81m:34005**
- Mkrtumjan, R. R. (with Šikova, R. N.) Meromorphy of solutions of some classes of linear differential equations. (Russian) **81d:34005**
- Mohanku, V. D. Magnitudes of deviations for the transcendental solution of a differential equation. (Russian) **81k:34005**
- Meromorphic solutions of systems of linear differential equations with meromorphic coefficients. (Russian) **81m:34006**

- Okamoto, Kazuo Déformation d'une équation différentielle linéaire avec une singularité irrégulière sur un tore. **81e:34009**
- Ozawa, Mitsuru On a solution of $w'' + e^{-w} + (az + b)w = 0$. **81k:34006**
- On the boundedness of the solutions of a differential equation in the complex domain. **81k:34007**
- Powder, Charles On the asymptotic behavior of a fundamental set of solutions. **81d:34006**
- Ramis, J.-P. Dévissage Gevrey. (English summary) **81g:34010**
- Schmidt, Dieter Die Lösung der linearen Differentialgleichung 2. Ordnung um zwei einfache Singularitäten durch Reihen nach hypergeometrischen Funktionen. **81d:34007**
- Selberg, Henrik L. Über die gewöhnliche Differentialgleichung erster Ordnung. **81k:34008**
- Über einen Satz von Rellick. **81k:34009**
- Šikova, R. N. See Mkrtumjan, R. R., **81d:34005**
- Stehmetz, Norbert Bemerkung zu einem Satz von Yosida. **81a:34007**
- Zur Theorie der binomischen Differentialgleichungen. **81a:34008**
- Ein Malmquist'scher Satz für algebraische Differentialgleichungen erster Ordnung. **81m:34007**
- Watanabe, Shunro A verification for nonexistence of movable branch points of six Painlevé transcendents by formula manipulations. **81e:34010**
- Yoshida, Masahiko An example of a family of ordinary Fuchsian differential equations with discrete projective monodromy groups. **81j:34013**
- Zinčenko, I. L. The structure of asymptotically stable invariant sets of periodic complex analytic systems of differential equations. (Russian, English summary) **81f:34011**

secondary classifications:

- Abramovich, S. See Strelitz, Sh., (81b:34010)
- Bank, Steven B. Some representation theorems for solutions of nonlinear second-order differential equations. (81f:34041)
- (with Kaufman, Robert P.) On differential equations and functional equations. (81e:10048)
- (with Kaufman, Robert P.) On the growth of meromorphic solutions of the differential equation $(y')^m = R(x, y)$. (81k:30028)
- Charrière, Hélène (with Gérard, Raymond) Réduction formelle de certaines connexions linéaires singulières à plusieurs variables. (English summary) (81j:12021)
- Čudnovsky, Gregory V. Rational and Padé approximations to solutions of linear differential equations and the monodromy theory. (81m:10066)
- Approximations de Padé explicites pour les solutions des équations différentielles linéaires fuchsienues. (English summary) (81a:65006)
- Corliss, George F. Integrating ODEs in the complex plane—pole vaulting. (81m:65115)
- Craggall, Paolo Stability of linear complex flows in the Siegel domain with respect to linear perturbations. (Italian summary) (81e:58043)
- Gérard, Raymond See Charrière, Hélène, (81j:12021)
- Jouanolou, J. P. ★ Equations de Pfaff algébriques. (French) [Algebraic Pfaffian equations] (81k:14008)
- Kaufman, Robert P. See Bank, Steven B., (81a:10048) and Bank, Steven B., (81k:30028)
- Kita, Michitake The Riemann-Hilbert problem and its application to analytic functions of several complex variables. (81c:32028a)
- The Riemann-Hilbert problem in several complex variables. II. (81c:32028b)
- Naišul', V. A. Topological invariants of germs of analytic mappings and area preserving mappings, and their application to analytic differential equations in $\mathbb{C}P^2$. (Russian) (81i:58029)
- Pfeiffer, Wayne A graphical method for finding complex roots and its application to plasma physics problems. (81e:76056)
- Schwartz, Blayamin Disconjugacy of complex second-order matrix differential systems. (81j:34063)
- Shimomura, Shun On a Pfaffian system containing parameters. (81h:58009)
- Strelitz, Sh. (with Abramovich, S.) On the existence of eigenvalues of differential operators dependent on a parameter. (81b:34010)
- Varčenko, A. N. Hodge properties of the Gauss-Manin connection. (Russian) (81j:32012)
- Welker, Gunter Haarsche Systeme von komplexen Exponentialsummen. (81c:30017)

34A25 Analytical theory: series, transformations, transforms, operational calculus, etc. [See also 44-XX, 47E05.]

- Bogolovskii, B. P. Parametric representation of the solutions of some nonlinear equations in the neighborhood of moving singular points. (Russian) **81a:34009**
- D'Archangelo, James On the Whittaker differential equation and Laplace transforms. **81h:34004**
- Dokšević, A. I. A particular solution of an Euler-Poisson system under Kovalevskaja conditions. (Russian) **81f:34012**
- Éliashik, A. M. Invariant differential equations and their applications in physics and mechanics. I. (Russian) **81g:34011**
- Kečič, Jovan D. On nonlinear superposition. III. **81g:34012**
- Klenov, V. I. See Lizarer, A. D., **81h:34005**
- Lizarer, A. D. (with Klenov, V. I.) Analytic solutions of a class of equations with polynomial coefficients. (Russian) **81h:34005**
- Meiller, T. K. Construction of asymptotic solutions of second-order equations with a small parameter multiplying the derivative. (Russian) **81h:34005**
- Northover, Francis H. See Ross, Bertram, **81h:34013**
- Prikarpetskii, A. K. An analogue of the Bäcklund transformation for Riccati ordinary differential equations. (Russian) **81j:34014**
- Ross, Bertram (with Northover, Francis H.) Application of derivatives of complex order in the theory of operators of fractional order $d^{3/2}/dx^{3/2}$. (Russian) **81g:34013**
- Ruiz-Chaynes, Julio (with Zevallos Gutierrez, Mauro) Power series solutions for the m th-order-matrix ordinary differential equation. **81c:34004**
- Zevallos Gutierrez, Mauro See Ruiz-Chaynes, Julio, **81c:34004**

secondary classifications:

- Berezovskaja, G. M. (with Berezovskij, M. I.) On asymptotic representation of Λ -basis functions. (Russian) (81i:47048)
- Berezovskij, M. I. See Berezovskaja, G. M. (81i:47048)
- Bularas, Driss (with Sibirskij, K. S.) Centroaffine invariants of a quadratic differential system. (Russian) (81a:53015)
- Chudnovsky, David V. (with Chudnovsky, Gregory V.) The Bäcklund transformation for isomonodromy deformation Schlesinger equations. (81m:50007)
- Chudnovsky, Gregory V. See Chudnovsky, David V. (81m:50007)
- Dwork, B. (with Robba, Philippe) On natural radii of p -adic convergence. (81c:12030)
- Hall, Leon M. Singular differential systems—how many solutions? (81m:34003)
- Karmakar, Sudhangshu B. Laplace transform solution of nonlinear differential equations. (81c:44003)
- Malamud, M. M. Transformation operators for higher-order equations. (Russian) (81c:34012)
- Mambriani, Antonio (with Mambriani, Giuseppe) Restricted derelgebra: first step towards a new "functional analysis". II. (Italian) (81j:44009)
- Mambriani, Giuseppe See Mambriani, Antonio, (81j:44009)
- Perko, Richard Zur Theorie der partiellen Differentialgleichungen vom Briot-Bouquet'schen Typ. (81g:35012)
- Robba, Philippe See Dwork, B. (81c:12030)
- Sariet, Willy On linear nonconservative systems derivable from a variational principle. (81c:70016)
- Schmidt, Dieter S. Literal solution for Hill's lunar problem. (81f:70012)
- Sibirskij, K. S. See Bularas, Driss, (81a:53015)

34A30 Linear equations and systems

- Arhutič, G. M. Linear higher-order total differential equations with constant coefficients. (Russian. English summary) 81j:34015
- Čeremenskij, A. G. Construction of a linear system of equations by its integral curves. (Russian) 81j:34016
- Čerepennikov, V. B. The method of functional parameters in the theory of nonstationary processes. (Russian) 81m:34008
- Cheng, Sui Sun Ordinary differential operators and their convolution adjoints. 81c:34011
- Dyšin, O. A. An operator method of solution of ordinary differential equations in generalized functions. (Russian) 81c:34005
- Fedenja, M. M. On the sensitivity and the extremal perturbation of the spectrum for a linear periodic system. (Russian. English summary) 81j:34017
- Ger'janov, A. E. Inversion of a linear nonstationary system. (Russian) 81d:34008
- Lasov, P. R. Sur un système des équations différentielles algébriques. (English and Serbo-Croatian summaries) 81k:34010
- Malamud, M. M. Transformation operators for higher-order equations. (Russian) 81c:34012
- Mařík, Jan Linear differential equations of second order with discontinuous coefficients. 81c:34005
- Mazanič, S. A. Relative rotation for a three-dimensional linear differential system. (Russian) 81j:34018
- Meiliev, T. K. See Škil', M. I., 81j:34019
- Pfaff, Rainer Gewöhnliche lineare Differentialgleichungen n -ter Ordnung mit Distributionskoeffizienten. (English summary) 81h:34006
- Rachinková, Irena Algebraic properties of phases of the differential equation $y'' = q(t)y$. (Czech and Russian summaries) 81f:34013
- Read, Thomas T. Second-order differential equations with small solutions. 81m:34009
- Šepkarev, Ilja A. Polynome als allgemeine Integrale der homogenen linearen Differentialgleichungen. (Macedonian summary) 81h:34007
- Škil', M. I. (with Meiliev, T. K.) Asymptotic representation of solutions of a system of second-order linear differential equations with a small parameter multiplying the highest derivative. (Russian) 81j:34019
- Starin, I. I. A method of studying linear systems. (Russian) 81h:34006
- Talaféro, Steven D. On the angular variation of solutions of second order linear systems. 81h:34008

secondary classifications:

- Becker, Ronald I. Asymptotic expansions of second order linear differential equations having conditionally integrable coefficients. (81h:34063a)
- Asymptotic expansions of formally selfadjoint differential equations with conditionally integrable coefficients. (81h:34063b)
- Berković, L. M. ★ Преобразование обыкновенных линейных дифференциальных уравнений. (Russian) [Transformation of ordinary linear differential equations] (81f:34001)
- Bidařekov, E. Y. Inverse problems for ordinary differential equations. (Russian) (81f:34016)
- Bondarenko, B. A. Some classes of entire transcendental functions and their applications to differential equations. (Russian) (81i:30046)
- Bretteville, Jacques See Mauss, Jacques, (81d:73005)
- Cheng, Sui Sun On the n -dimensional harmonic oscillator. (81a:34016)
- Cohen, Jeffrey M. (with Vishveshwara, C. V.; Dhurandhar, S. V.) Electromagnetic fields in the Gödel universe. (81d:83019)
- Costi, Roberto On a class of asymptotically stable linear differential equations. (81g:34060)
- Cushman, Richard (with Kelley, Al) Strongly stable real infinitesimally symplectic mappings. (81d:58031)
- Dhursadhar, S. V. See Cohen, Jeffrey M.; et al., (81a:83019)
- Gera, Milan Über die Untermengen der Lösungen der Gleichung $x''' + a(t)x'' + b(t)x' + c(t)x = 0$, $c(t)x > 0$. (Russian summary) (81m:34040)
- Kelley, Al See Cushman, Richard, (81d:58031)
- Kiselev, M. I. (with Kuzvanov, V. A.) The possibility of measurements in geophysics by

- weakly damped systems. (Russian) (81k:86002)
- Kurnik, A. V. Stability of the solutions of a system of second-order linear differential equations with periodic coefficients. (Russian) (81d:34039)
- Kuzvanov, V. A. See Kiselev, M. I., (81k:86002)
- Mauss, Jacques (with Bretteville, Jacques) Dérivation et intégration objectives régulières. (English summary) (81d:73005)
- Mehon'ko, V. D. Meromorphic solutions of systems of linear differential equations with meromorphic coefficients. (Russian) (81m:34006)
- Murty, K. Narasimha See Rao, D. R. K. S., (81k:34012)
- Palmer, Kenneth J. On the reducibility of almost periodic systems of linear differential equations. (81g:34043)
- Rao, D. R. K. S. (with Murty, K. Narasimha) Transformation of a class of nonselfadjoint eigenvalue problems. (81k:34012)
- Rutz-Claeyssen, Julio (with Zevallos Gutierrez, Mauro) Power series solutions for the m th-order-matrix ordinary differential equation. (81c:34004)
- Sailhor, V. H. Differential irreducibility of a class of differential equations. (Russian) (81i:10053)
- Steinmetz, Norbert Ein Malmquist'scher Satz für algebraische Differentialgleichungen erster Ordnung. (81m:34007)
- Vishveshwara, C. V. See Cohen, Jeffrey M.; et al., (81a:83019)
- Zevallos Gutierrez, Mauro See Rutz-Claeyssen, Julio, (81c:34004)

34A34 Nonlinear equations and systems, general

- Curtis, W. D. See Phythian, R., 81d:34009
- Gršin, S. A. (with Utkin, V. I.) On extending the definition of discontinuous systems. (Russian) 81g:34014
- Mynbaeva, S. M. Study of a nonlinear system of ordinary differential equations. (Russian) 81k:34011
- Nguyen Van Dao See Tran Kim Chi, 81i:34007
- Phythian, R. (with Curtis, W. D.) Feynman's variational method applied to the randomly forced Duffing equation. 81d:34009
- Tran Kim Chi (with Nguyen Van Dao) Construction of the solutions of nonlinear high order differential equations. 81i:34007
- Utkin, V. I. See Gršin, S. A., 81g:34014
- Vatsala, A. S. (with Vaughn, Randy) Existence and comparison results for differential equations of Sobolev type. 81b:34006
- Vaughn, Randy See Vatsala, A. S., 81b:34006
- Wang, Lian A nonlinear second-order ordinary differential equation arising in the design of a high-tension power line network: $\ddot{x} + RF'(x)\dot{x} + F(x)/L = A \cos \omega t$, $F(x) = ax + bx^3$. (Chinese) 81a:34010

secondary classifications:

- Abdualvator, H. A. A priori estimates for bounded solutions of a system of two nonlinear differential equations. (Russian) (81d:34027)
- Actor, Alfred Classical solutions of SU(2) Yang-Mills theories. (81b:81014)
- Bahar, L. Y. See Sariet, Willy, (81f:70010)
- Baris, Ja. S. (with Likova, O. B.) Approximate integral manifolds of systems of nonlinear differential equations. (Russian) (81m:34057)
- Barut, Asim Orhan Nonlinear problems in classical and quantum electrodynamics. (81f:81096)
- Butler, G. J. The Poincaré-Birkhoff "twist" theorem and periodic solutions of second-order nonlinear differential equations. (81g:34047)
- Csetényi, A. (with Tóth, F.) On the Lotka-Volterra type models of cyclical crisis. (81i:90044)
- Dale, P. See Vein, P. R., (81f:15013)
- Fil'čukova, V. P. An approximate method of solving second-order nonlinear differential equations of a polynomial class. (Russian) (81m:65146)
- Hart, V. G. Exact solutions of two nonlinear equations and hypercircle estimates. (81i:65083)
- Karmakar, Sudhangshu B. Steady-state response of a nonlinear system. (81j:45004)
- Likova, O. B. See Baris, Ja. S., (81m:34057)
- Mynbaeva, S. M. Limit properties of solutions of a nonlinear system of ordinary differential equations. (Russian. Kazakh summary) (81f:34043)
- Ramanujam, N. (with Srivastava, U. N.) Singularly perturbed initial value problems for nonlinear differential systems. (81c:34048)
- Sabata, H. A certain type of integrating factors for some single systems. (81j:34007)
- Sariet, Willy (with Bahar, L. Y.) A direct construction of first integrals for certain nonlinear dynamical systems. (French and German summaries) (81f:70010)
- Sato, Shunsuke The use of nonlinear differential equations in biology and chemistry. (Japanese) (81i:92016)
- Srivastava, U. N. See Ramanujam, N., (81c:34048)
- Tóth, F. See Csetényi, A., (81i:90044)
- Vein, P. R. (with Dale, P.) Determinants, their derivatives and nonlinear differential equations. (81f:15013)

34A35 Differential equations of infinite order

- Ballkov, G. I. Solutions of an infinite-order differential equation bounded on the whole straight line. (Russian) 81h:34009
- Berz, Edgar Differentialoperatoren ganzer Funktionen. 81g:34015
- Can Dyk Van A boundary value problem for degenerate ordinary differential equations of infinite order. (Russian) 81h:34010

secondary classifications:

- Chew, K. H. (with Shivakumar, P. N.; Williams, J. J.) Error bounds for the truncation of infinite linear differential systems. (81a:34012)
- Shivakumar, P. N. See Chew, K. H.; et al., (81a:34012)
- Sijnsma, V. E. Invertibility of differential operators in the space of infinitely

differentiable functions on the line. (Russian) (81b:47057)

Williams, J. J. See Chew, K. H.; et al., (81a:34012)

34A40 Differential inequalities

Bénilan, Philippe (with Pierre, Michel) Inéquations différentielles ordinaires avec obstacles irréguliers. (English summary) 81c:34006

Helkälä, S. On the quasimonotonicity of linear differential systems. 81g:34016

Kierlikowski, Marek On a differential inequality of the type $X'' + f(t)X > 0$. 81g:34017

Maddowney, James S. Linear differential inequalities. 81c:34007

Naito, Manabu Positive solutions of nonlinear differential inequalities. 81a:34011

Pierre, Michel See Bénilan, Philippe, 81c:34006

Reddy, K. Narasimha Integral inequalities and applications. 81d:34010

secondary classifications:

Grammatikopoulos, M. K. Oscillation theorems for second order ordinary differential inequalities and equations with alternating coefficients. (81h:34024)

Havani, László On the continuation of solutions of differential equations by vector Liapunov functions. (81h:34003)

Ramanujam, N. See Srivastava, U. N., (81m:34031)

Srivastava, U. N. (with Ramanujam, N.) Differential inequalities and singular perturbation problems. (81m:34031)

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Chew, K. H. (with Shivakumar, P. N.; Williams, J. J.) Error bounds for the truncation of infinite linear differential systems. 81a:34012

Minelli, T. A. (with Pusterla, M.; Roberty, N. C.) Analytical approximate solutions of the nonlinear basic equations in classical physics. 81h:34011

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Rabin, L. V. Application of the averaging method in the investigation of a countable system of differential equations. (Russian. Kazakh summary) 81a:34013

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Rukhik, V. S. On the theory of constructing estimates of solutions of nonlinear differential equations of perturbed motion using comparison functions. (Russian) 81c:34010

Sanders, Jan A. Asymptotic approximations and extension of time-scales. 81f:34014

Štorbina, G. V. On the question of a priori estimates for solutions of second-order equations. (Russian) 81b:34007

Shivakumar, P. N. See Chew, K. H.; et al., 81a:34012

Williams, J. J. See Chew, K. H.; et al., 81a:34012

secondary classifications:

Abd-el-Naby, M. A. See Greig, D. M., (81d:65036) and Greig, D. M., (81f:65060)

Balazs, D. D. See Sarafova, G. H., (81b:45022) and Kazakova, N. G., (81c:34008)

Čeremennikov, V. B. The method of functional parameters in the theory of nonstationary processes. (Russian) (81m:34008)

See also Korsukov, V. M.; et al., (81m:34011)

Greig, D. M. (with Abd-el-Naby, M. A.) Iterative solutions of nonlinear initial value differential equations in Chebyshev series using Lie series. (81d:65036)

(with Abd-el-Naby, M. A.) A series method for solving nonlinear two-point boundary value problems. (81f:65060)

Hackvič, V. L. Application of the Galerkin method for determining periodic solutions of differential equations. (Russian) (81b:34031)

Kazakova, N. G. (with Bañov, D. D.) Existence of solutions of a boundary value problem for functional-differential equations of neutral type. Convergence of the successive approximation method. (Russian. Bulgarian and English summaries) (81c:34008)

Korsukov, V. M. (with Tupčii, S. G.; Čeremennikov, V. B.) Mappings of functions of physical time in a small time space. (Russian) (81m:34011)

Kurbanov, I. A. A boundary value problem. (Russian) (81g:34024)

Mollova, K. G. Periodic solutions of a quasilinear nonautonomous system with retarded argument in the resonance case. (Bulgarian. Russian and English summaries) (81j:34125)

Pugachev, B. P. Application of the continuation method to the solution of nonlinear boundary value problems. (Russian) (81f:34024)

Sarafova, G. H. (with Bañov, D. D.) The reduction principle for a class of integro-differential equations. (Russian) (81b:45022)

Tupčii, S. G. See Korsukov, V. M.; et al., (81m:34011)

34A50 Numerical approximation of solutions {For numerical analysis, see 65Lxx.}

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Goldes, K. O. Convergence behaviour of the Newton iteration for first-order differential equations. 81f:34015

Kirchgraber, Urs Towards a rigorous justification of the Stiefel-Baumgarte stabilization method. 81d:34011

Korsukov, V. M. (with Tupčii, S. G.; Čeremennikov, V. B.) Mappings of functions of physical time in a small time space. (Russian) 81m:34011

Schneider, Klaus R. On the existence and numerical approximation of forced oscillations. 81g:34018

Tupčii, S. G. See Korsukov, V. M.; et al., 81m:34011

secondary classifications:

Čeremennikov, V. B. Approximate integration of a system of linear differential equations in a small time space. (Russian) (81j:65080)

Falk, Richard S. Error estimates for the approximate identification of a constant coefficient from boundary flux data. (81h:65068)

de Groen, P. P. N. (with Hemker, P. W.) Error bounds for exponentially fitted Galerkin methods applied to stiff two-point boundary value problems. (81a:65076)

Hemker, P. W. See de Groen, P. P. N., (81a:65076)

Huston, Ronald L. See Krinke, Dennis C., (81d:65039)

Krall, Allan M. See Mills, Wendell; et al., (81g:34002)

Kreiss, Heinz-Otto Problems with different time scales for ordinary differential equations. (81a:65067)

Krinke, Dennis C. (with Huston, Ronald L.) An analysis of algorithms for solving differential equations. (81d:65039)

Mills, Wendell (with Weisfeiler, Boris; Krall, Allan M.) Discovering theorems with a computer: the case of $y' = \sin(xy)$. (81g:34002)

Weisfeiler, Boris See Mills, Wendell; et al., (81g:34002)

Werschulz, Arthur G. Computational complexity of one-step methods for systems of differential equations. (81a:65069)

34A55 Inverse problems

Bidařbekov, E. Y. Inverse problems for ordinary differential equations. (Russian) 81f:34016

González Gascón, F. (with Moreno-Inertis, F.; Rodríguez-Camino, E.) The inverse problem of nonlinear dynamical systems: a constructive approach. 81j:34021

Moreno-Inertis, F. See González Gascón, F.; et al., 81j:34021

Rodríguez-Camino, E. See González Gascón, F.; et al., 81j:34021

secondary classifications:

Cyčinskii, I. V. Approximation of surfaces by the construction of vector fields. (Russian) (81j:53019)

Gasyanov, M. G. Spectral analysis of a class of ordinary differential operators with periodic coefficients. (Russian) (81h:34023)

Geiko, V. S. On uniqueness conditions for determining from a hodograph the rate of seismic wave propagation outside waveguides. (Russian) (81j:86002)

Handelman, George H. See McLaughlin, Joyce R., (81m:34024)

Kaup, David J. On the inverse scattering problem for cubic eigenvalue problems of the class $\psi_{xx} + 6Q\psi_x + 6R\psi = \lambda\psi$. (81i:34019)

McLaughlin, Joyce R. (with Handelman, George H.) Sturm-Liouville inverse eigenvalue problems. (81m:34024)

Šabat, A. B. An inverse scattering problem. (Russian) (81m:34026)

34A60 Equations with multivalued right-hand sides [See also 49A50, 49E10.]

Bressan, Alberto On differential relations with lower continuous right-hand side. An existence theorem. 81j:34022

Bruck, Ronald E. On the weak asymptotic almost-periodicity of bounded solutions of $u' \in Au + f$ for monotone A . 81m:34012

Čurjak, V. Z. Stability with respect to the first approximation of differential inclusions. (Russian) 81b:34008

Filippov, A. F. Stability for differential equations with discontinuous and multivalued right-hand sides. (Russian) 81m:34013

Differential equations whose right-hand side is discontinuous on intersecting surfaces. (Russian) 81m:34014

Kisilewicz, Michał Description of a class of multivalued differential equations with almost weakly stable trivial solution. 81m:34015

Ljapin, L. N. A property of an integral vortex. (Russian) 81c:34013

Miller, Larry E. Generalized boundary-value problems. 81f:34017

Panasjuk, A. I. (with Panasjuk, V. I.) An equation generated by a differential inclusion. (Russian) 81i:34008

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Piontchik, V. A. Partial averaging of differential inclusions. (Russian) 81j:34023

Taber, Spas P. Existence of the solution of a differential equation with a many-valued right-hand side. (Russian) 81h:34012

Vrkoč, Ivo Scorza-Dragoni property of Filippov mappings. 81g:34019

secondary classifications:

Adams, E. On methods for the construction of the boundaries of sets of solutions for differential equations of finite-dimensional approximations with input sets. (81m:65067)

Conti, G. (with Massabò, I.; Nistri, P.) Set-valued perturbations of differential equations at resonance. (81m:34079)

Dubinskii, Ju. I. (with Šelžmanova, L. A.) Comparison theorem for differential equations and inclusions with deviating argument in Hilbert space and its application. (Russian. Azerbaijani and English summaries) (81m:34096)

Filippov, A. F. A system of differential equations with several discontinuous functions. (Russian) (81d:34041)

Gaidarov, D. R. (with Ragimhanov, R. K.) A Hammerstein integral inclusion. (Russian) (81h:45016)

Garov, V. M. Necessary conditions for any extremum for differential inclusions and L. S. Pontryagin's maximum principle. (Russian) (81g:49020)

Himmelberg, C. J. (with Van Vleck, F. S.) On the topological triviality of solution sets. (81g:34006)

Kisilewicz, Michał Existence theorem for generalized functional-differential equations of neutral type. (81m:34008)

Massabò, I. See Conti, G.; et al., (81m:34079)

Mahomedov, M. A. Attainable sets of differential inclusions. (Russian. Tajiki summary) (81g:34008)

Nistri, P. See Conti, G.; et al., (81m:34079)

Pelant, Juroslav A modification and comparison of Filippov and Viktorovskij

generalized solutions. (81c:34083)

Raghibanov, R. K. See Gaidarov, D. R., (81h:45016)

Selchmanova, L. A. See Dušlak, Ju. L., (81m:34096)

Stasinopoulos, G. I. Continuous dependence of constrained solutions of linear differential inclusions. (81g:49026)

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Venec, V. I. Differential inclusions in convex problems. (81e:90081)

Véron, Laurent Un exemple concernant le comportement asymptotique de la solution bornée de l'équation $d^2u/dt^2 \in \partial\varphi(u)$. (English summary) (81k:47089)

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Anosova, S. V. (with Gruško, P. Ja.) Group properties of the differential equation $a(x)y' + b(x)y = 0$. (Russian) 81g:34020

Grego, Paolo Patuzzo The G -convergence of ordinary differential equations in the case of unbounded domains. (Italian. English summary) 81h:34013

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Markov, S. M. Existence and uniqueness of solutions of the interval differential equation $X' = F(t, X)$. 81j:34024

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Vidosich, Giovanni General differential equations. (Spanish. English summary) 81f:34018

secondary classifications:

Baldassarri, F. On second-order linear differential equations with algebraic solutions on algebraic curves. (81k:14025)

Berković, L. M. See Čirulík, V. G., (81e:12026)

Čirulík, V. G. (with Berković, L. M.) Some properties of commutative differential operators over a function field of characteristic zero. (Russian) (81e:12026)

Gelfond, O. A. (with Hovanskii, A. G.) Real Liouville functions. (Russian) (81k:13009)

Hovanskii, A. G. See Gelfond, O. A., (81k:13009)

Kočić, Jovan D. Analogies between differential and difference equations. III. A class of linear second order difference equations with functional coefficients. (81m:39005)

Okamoto, Kazuo Painlevé's equations. (Japanese) (81h:58051)

Örsbo, Shiji Minimal length of Liouville chain for solutions of an algebraic differential equation. (81j:12023)

Pour-El, Marian Boykan (with Richards, Ian) A computable ordinary differential equation which possesses no computable solution. (81k:03064)

Richards, Ian See Pour-El, Marian Boykan, (81k:03064)

Schmidt, Dieter (with Wolf, Gerhard) A method of generating integral relations by the simultaneous separability of generalized Schrödinger equations. (81c:35019)

Verdier, Jean-Louis Équations différentielles algébriques. (81j:58050)

Wolf, Gerhard See Schmidt, Dieter, (81c:35019)

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secondary classifications:

Coddington, Earl A. (with Dijkstra, Aalt) Adjoint subspaces in Banach spaces, with applications to ordinary differential subspaces. (81k:47036)

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34B05 Linear equations

Beilman, Richard The zeta function associated with a linear differential equation. 81c:34014

Bojarincev, Ju. E. (with Korsukov, V. M.) The structure of a general continuously differentiable solution of a boundary value problem for a singular system of ordinary differential equations. (Russian) 81c:34008

Cheng, Sul Sun On the n -dimensional harmonic oscillator. 81a:34016

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Rao, D. R. K. S. (with Murty, K. Narasimha) Transformation of a class of nonselfadjoint eigenvalue problems. 81k:34012

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secondary classifications:

Androev, A. S. (with Penev, I. K.) On the numerical solution of boundary value problems of second-order ordinary differential equations by a cubic spline. (Bulgarian. Russian and English summaries) (81j:65088)

Čan Dyk Van A boundary value problem for degenerate ordinary differential equations of infinite order. (Russian) (81h:34010)

Elias, Uri Oscillatory solutions and extremal points for a linear differential equation. (81c:34027)

Eremenko, V. A. Some properties of periodic matrices. (Russian) (81a:15013)

Kreith, Kurt (with Swanson, Charles A.) Higher order Wirtinger inequalities. (81c:26013)

Neuberger, J. W. Boundary value problems for linear systems. (81a:47015)

Penev, I. K. See Androev, A. S., (81j:65088)

Reddien, George W. Projection methods for two-point boundary value problems. (81c:65049)

Roberts, S. M. Multidimensional Kagiwada-Kalaba method of invariant imbedding with general linear implicit boundary conditions. (81k:65094)

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34B10 Multipoint boundary value problems

Abdel Karim, Rahml Ibrahim Ibrahim Some boundary value problems of the third order in three points. (Arabic summary) 81f:34021

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Amick, Charles J. An existence theorem for a certain class of nonlinear multipoint boundary value problems. 81h:34014

Bugir, M. K. A remark on local criteria for nonoscillation of systems of equations. (Russian. English summary) 81m:34016

Castoldi, Luigi The derivatives of all orders at the ends of a two-sided bilateral Taylor expansion of an analytic function on a finite interval are known. A related expression in the series of the corresponding definite integral. (Italian. English summary) 81h:34010

Castro, Alfonso A two-point boundary value problem with jumping nonlinearities. 81d:34013

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Jackson, Lloyd K. Existence and uniqueness of solutions of boundary value problems for Lipschitz equations. 81f:34022

Kerimov, Dž. S. Application of an integral inequality to proof of the uniqueness and stability of solutions to multipoint problems for a system of ordinary differential equations. (Russian) (See 80d:00021)

Koneru, S. R. (with Kulkarni, D. R.; Rao, J. V.) An inherent property in numerical methods for two-point boundary value problems. 81h:34015

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Kurpel', M. S. (with Marušjak, A. G.) A multipoint boundary value problem for differential equations with parameters. (Russian) 81j:34027

Lada, A. A two-point boundary value problem for systems of ordinary nonlinear differential equations and the lemma of Višik. 81h:34016

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Murty, K. Narasimha Four-point boundary value problems—existence and uniqueness. 81g:34021

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Roberts, S. M. Reduction and the Kagiwada-Kalaba method of invariant imbedding. 81c:34010

Strelitz, Sh. (with Abramovich, S.) On the existence of eigenvalues of differential operators dependent on a parameter. 81h:34010

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Vencko, Jozef Bemerkungen zu einer Randwertaufgabe in drei Punkten für die Differentialgleichung dritter Ordnung. (Slovak and Russian summaries) 81h:34011

secondary classifications:

Chadaja, O. T. Solvability conditions for a de la Vallée Poussin boundary value problem. (Russian) (81b:34059)

Kapila, A. K. (with Matkowsky, Bernard J.; Vega, J.) Reactive-diffusive system with Arrhenius kinetics: peculiarities of the spherical geometry. (81h:80009)

Matkowsky, Bernard J. See Kapila, A. K.; et al., (81h:80009)

Mawhin, Jean Two-point boundary value problems for nonlinear second order differential equations in Hilbert spaces. (81m:34082)

Umamaheswaram, S. $\lambda(n, k)$ -convex functions. (81b:26006)

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34B15 Nonlinear boundary value problems

Anichini, Giuseppe A Lipschitz boundary value problem for nonlinear ordinary differential equations on noncompact intervals. 81m:34017

Bainov, D. D. (with Konstantinov, Mihail M.; Miluševa, S. D.) A boundary value problem for systems of differential equations with fast and slow variables. (Russian) 81m:34018

- Caristi, G. Some results on nonlinear boundary value problems for ordinary differential equations. (Italian summary) **81a:34020**
- Clement, Philippe (with Peletier, L. A.) On positive, concave solutions of two-point nonlinear eigenvalue problems. **81i:34012**
- Eloe, P. W. (with Grimm, L. J.) Monotone iteration and Green's functions for boundary value problems. **81b:34012**
- Granas, Andrzej (with Guenther, R. B.; Lee, J. W.) Nonlinear boundary value problems for some classes of ordinary differential equations. **81b:34017**
- Gregui, Michal, Jr. The existence of a solution of a nonlinear boundary value problem. (Russian summary) **81j:34028**
- Grimm, L. J. See Eloe, P. W., **81b:34012**
- Guenther, R. B. See Granas, Andrzej; et al., **81b:34017**
- Gupta, Chaitan P. (with Thompson, Russell C.) Boundary value problems for a system of ordinary differential equations. **81g:34022**
- Hamedani, G. G. (with Mehri, B.) A nonlinear periodic boundary value problem for a system of equations of the second order. **81j:34029**
- Hoffman, Wilfried (with Küpper, Tassilo) Punktweise Abschätzungen zur Ermittlung des Einflusses von Störtermen bei Verzweigungsproblemen. (English summary) **81g:34023**
- Hosono, Yuzo See Mimura, Masayasu; et al., **81g:34025**
- Jackson, Lloyd K. Boundary value problems for Lipschitz equations. **81i:34013**
- Kapur, Janusz On a certain boundary value problem and its generalized solution. (Polish and Russian summaries) **81f:34023**
- Kodera, Kyōko A boundary value problem of a system of second-order ordinary differential equations. (Japanese) **81d:34015**
- Konstantinov, Mihail M. See Bainov, D. D.; et al., **81m:34018**
- Krasnosel'skii, A. M. New a priori estimates of the solutions of a two-point boundary value problem and their applications. (Russian) **81d:34016**
- Küpper, Tassilo On minimal nonlinearities which permit bifurcation from the continuous spectrum. **81m:34019**
- See also Hoffman, Wilfried, **81g:34023**
- Kurbanov, I. A. A boundary value problem. (Russian) **81g:34024**
- Lee, J. W. See Granas, Andrzej; et al., **81b:34017**
- Ligza, Jan On generalizations of boundary value problems for nonlinear differential equations of second order. (Polish summary) **81m:34020**
- Macki, Jack W. A singular nonlinear boundary value problem. **81h:34018**
- Mehri, B. See Hamedani, G. G., **81j:34029**
- Milneva, S. D. See Bainov, D. D.; et al., **81m:34018**
- Mimura, Masayasu (with Tabata, Masahisa; Hosono, Yuzo) Multiple solutions of two-point boundary value problems of Neumann type with a small parameter. **81g:34025**
- Mooney, J. W. Constructive existence theorems for problems of Thomas-Fermi type. **81a:34011**
- Murty, K. Narasimha See Rao, D. R. K. S.; et al., **81k:34013**
- Peletier, L. A. See Clement, Philippe, **81a:34012**
- Pugachev, B. P. Application of the continuation method to the solution of nonlinear boundary value problems. (Russian) **81f:34024**
- Ramanujan, N. (with Srivastava, U. N.) Nonlinear two point boundary value problems. **81e:34015**
- Rao, A. S. See Rao, D. R. K. S.; et al., **81k:34013**
- Rao, D. R. K. S. (with Murty, K. Narasimha; Rao, A. S.) A generalized two-point boundary value problem. **81k:34013**
- Reeken, Michael Rotating chain fixed at two points vertically above each other. **81h:34019**
- Schäfer, B. L. A two-point de la Vallée-Poussin problem. (Russian) **81i:34014**
- Srivastava, U. N. See Ramanujan, N., **81e:34015**
- Tabata, Masahisa See Mimura, Masayasu; et al., **81g:34025**
- Thompson, Russell C. See Gupta, Chaitan P., **81g:34022**
- Tiba, Dan General boundary value problems for second order differential equations. **81a:34015**

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- Ade, Hans Existenzsätze für schwach nichtlineare Operatorgleichungen und Anwendung auf Randwertaufgaben mit gewöhnlichen Differentialgleichungen. (English summary) **(81j:47048)**
- Agarwal, A. R. L. (with Saraf, S. K.) Invariant embedding: a new method of solving a system of nonlinear boundary-value differential equations. **(81b:65071)**
- Ahmetina, G. Š. See Bel'tjukov, B. A., **(81h:65129)**
- Bainov, D. D. See Milneva, S. D., **(81d:45013)**
- Bel'tjukov, B. A. (with Ahmetina, G. Š.) The method of integral equations for approximate solution of nonlinear boundary value problems. (Russian) **(81h:65129)**
- Browne, Patrick J. (with Sleeman, B. D.) Bifurcation from eigenvalues in nonlinear multiparameter Sturm-Liouville problems. **(81c:34016)**
- Bruck, Ronald E. Periodic forcing of solutions of a boundary value problem for a second-order differential equation in Hilbert space. **(81m:34078)**
- Čiutjukov, V. M. The convergence of an iterative process for ordinary differential equations. (Russian) **(81c:65037)**
- Dickmann, O. (with Hilhorst, D.) How many jumps? Variational characterization of the limit solution of a singular perturbation problem. **(81k:34046)**
- Dimasbaev, D. S. Necessary and sufficient conditions for the existence of solutions of boundary value problems with a parameter. (Russian. Kazakh summary) **(81a:34060)**
- Eiser, Henning Stability inequalities for discrete nonlinear two-point boundary value problems. **(81g:65109)**
- Grundy, R. E. (with Phillips, G. M.) Application of Hermite approximation to a boundary value problem. **(81m:65135)**
- Hilhorst, D. See Dickmann, O., **(81k:34046)**
- Howes, F. A. Some singularly perturbed superquadratic boundary value problems whose solutions exhibit boundary and shock layer behavior. **(81g:34074)**
- Kalaba, Robert (with Zagustin, E. A.) Cauchy system for the nonlinear boundary value problem of a shallow arch. **(81e:73065)**

- Kedem, Gershon (with Parter, Seymour V.; Steuerwalt, Michael) The solutions of a model nonlinear singular perturbation problem having a continuous locus of singular points. **(81m:34074)**
- Martelli, Mario A note on boundary value problems at resonance. (Italian summary) **(81c:34037)**
- Milneva, S. D. (with Bainov, D. D.) Application of the averaging method for the solution of multipoint boundary value problems with a nonlinear boundary condition for systems of differential and integro-differential equations that are not solved for the derivative. (Russian) **(81b:45013)**
- de Mottoni, Piero Über eine nichtlineare Randwertaufgabe. **(81d:58042)**
- Parter, Seymour V. See Kedem, Gershon; et al., **(81m:34074)**
- Petryshyn, W. V. Fredholm theory for abstract and differential equations with noncompact nonlinear perturbations of Fredholm maps. **(81b:47081)**
- Phillips, G. M. See Grundy, R. E., **(81m:65135)**
- Sakai, Mamabu Polynomial spline interpolation and two-point boundary value problems. **(81c:65050)**
- Saraf, S. K. See Agarwal, A. R. L., **(81b:65071)**
- Seydel, Rüdiger Numerical computation of primary bifurcation points in ordinary differential equations. **(81c:65041)**
- Sleeman, B. D. See Browne, Patrick J., **(81c:34016)**
- Sprekels, Jürgen (with Voss, Heinrich) Bounds for the critical value of a nonlinear circular membrane under normal pressure. **(81h:73038)**
- Steuerwalt, Michael See Kedem, Gershon; et al., **(81m:34074)**
- Voss, Heinrich See Sprekels, Jürgen, **(81h:73038)**
- Ward, James R., Jr. Existence theorems for nonlinear boundary value problems at resonance. **(81k:47090)**
- Weber, Helmut Numerische Behandlung von Verzweigungsproblemen bei gewöhnlichen Randwertaufgaben. (English summary) **(81c:65042)**
- Zagustin, E. A. See Kalaba, Robert, **(81e:73065)**
- Zandbergen, P. J. New solutions of the Kármán problem for rotating flows. **(81c:76049)**

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- Coddington, Earl A. (with de Snoo, Hendrik S. V.) Differential subspaces associated with pairs of ordinary differential expressions. **81a:34021**
- Evans, W. D. (with Zettl, A.) Levinson's limit-point criterion and powers. **81f:34025**
- Everitt, W. N. (with Zettl, A.) Generalized symmetric ordinary differential expressions. I. The general theory. **81a:34022**
- Freitag, Hilbert Limit-point criteria for systems of differential equations. **81f:34026**
- Harris, B. J. On the spectra and stability of periodic differential equations. **81g:34026**
- Kaufman, Robert M. On the limit- n classification of ordinary differential operators with positive coefficients. II. **81j:34026**
- de Snoo, Hendrik S. V. See Coddington, Earl A., **81a:34021**
- Zettl, A. See Everitt, W. N., **81a:34022** and Evans, W. D., **81f:34025**

secondary classifications:

- Graef, John R. Limit circle criteria and related properties for nonlinear equations. **(81e:34025)**
- 34B25 Spectral theory, Sturm-Liouville, and scattering theory; eigenfunctions, eigenvalues, and expansions [See also 42-XX, 43-XX, 45C05, 47Axx, 47Bxx, 47E05.]
- Amangildin, T. G. See Murtazina, H. H., **81b:34016**
- Appley, O. D. (with Otelbaev, M.) The spectrum of a degenerate operator. (Russian) **81b:34013**
- Asadullin, N. M. Analogues of regularized traces for second-order differential operators with "floating" singularity in the coefficients. (Russian. English summary) **81c:34014**
- Avakjan, V. A. The Sturm-Liouville problem with spectral parameter λ in the boundary condition. (Russian. Armenian and English summaries) **81h:34020**
- Avron, Joseph E. On the spectrum of $p^2 + V(x) + ex$, with V periodic and e complex. **81d:34017**
- Bagdasarjan, L. A. See Simonjan, S. G., **81c:34016**
- Biłaskaja, S. K. The basis property for the system of eigen- and associated functions of a nonselfadjoint differential operator. (Russian) **81g:34027**
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- Browne, Patrick J. (with Sleeman, B. D.) Bifurcation from eigenvalues in nonlinear multiparameter Sturm-Liouville problems. **81c:34016**
- Butler, John B., Jr. On abstract formulation of the inverse spectral problem for the Sturm-Liouville operator. (Turkish summary) **81k:34015**
- Caudrey, P. J. The inverse problem for the third order equation $u_{xxx} + q(x)u_x + r(x)u = -i\lambda^3 u$. **81k:34016**
- Colton, David See Wimp, Jet, **81h:34035**
- Degutis, J. Expansion in eigen- and associated functions. (Russian. Lithuanian and English summaries) **81h:34021**
- Derguzov, V. I. The spectrum of a Hamiltonian operator with periodic coefficients. (Russian. English summary) **81f:34027**
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- See also Sadovnik, V. A., (See 80f:35002)
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- equations. **81j:34031**
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- Gasyimov, M. G. Spectral analysis of a class of ordinary differential operators with periodic coefficients. (Russian) **81h:34023**
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- Hallova, R. Z. Regularization of the trace of a boundary value problem. (Russian) **81i:34017**
- Handelman, George H. See McLaughlin, Joyce R., **81m:34024**
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On some spectral problems and isospectral evolutions connected with the classical string problem. II. Evolution equation. **81h:34034b**
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- Sargsjan, I. S. See Kostjuchenko, A. G., **81j:34034**
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- Sleeman, B. D. Klein oscillation theorems for multiparameter eigenvalue problems in ordinary differential equations. **81h:34021**
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- Turchetti, Giorgio (with Sagretti, C.) Stieltjes functions and approximate solutions of an inverse problem. **81j:34041**
- Úlehla, Ivan See Hálová, D.; et al., **81a:34023**
- Umaltov, S. D. See Koval'čuk, V. E., **81j:34035**
- Vagabov, A. I. Multiple summability in eigen- and associated functions for nonregular differential bundles. (Russian) **81m:34027**
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- Veliev, M. B. (with Gadzhiev, I. T.) The S -matrix of a system of Sturm-Liouville equations on the entire axis. (Russian. Azerbaijani and English summaries) **81j:34040**
- Veliev, O. A. The one-dimensional Schrödinger operator with periodic complex-valued potential. (Russian) **81d:34022**
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- Willner, Barry E. (with Mahar, Thomas J.) Extrema of functions of eigenvalues. **81c:34019**

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Antman, Stuart S. Nonlinear eigenvalue problems for the whirling of heavy elastic strings. (81d:73018)
 Bagchi, B. (with Seyler, R. G.) Integral equations and the bound-state problem. (81i:81002)
 Bagdasarian, L. A. See Simonjan, S. G., (81b:34057)
 Balabec, E. B. Improved energy lower bound for the N -fermion system. (81m:81002)
 Bang, J. M. (with Erlov, S. N.; Gareev, F. A.) A new type of real Weinberg functions. (81a:81125)

Beverland, V. A. Eigenfunction expansion of a Schrödinger-type equation in Hilbert space. (Russian) (81b:34049)
 Bolotov, N. S. (with Dimovski, Ivan Hristov) Boundary value operational calculi for linear differential operators of second order. (81b:44016)

Browne, Patrick J. (with Sleeman, B. D.) Stability regions for multiparameter systems of periodic second order ordinary differential equations. (81b:34044)

Calogero, F. Nonlinear evolution equations solvable by the spectral transform: some recent results. (81m:35121)

Carlson, Robert Local completeness for eigenfunctions of regular maximal ordinary differential operators. (81e:47039)

Cicogna, G. Stability of spectral properties for sequences of abstract operators of the type of Sturm-Liouville. (81g:47020)

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Coudray, C. A study of an inverse problem for finite range potentials. (81f:81067)

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Dumont-Lepage, M. Cl. (with Gani, N.; Gazeau, J. P.; Ronveaux, A.) Spectrum of potentials $gr^{-(\nu+2)}$ via $SL(2, \mathbb{R})$ acting on quaternions. (81a:81013)

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Diverses données spectrales pour le problème inverse discret de Sturm-Liouville. (English summary) (81c:39003)

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Steiger, Arno D. On electromagnetic multipole fields in a finite, spherically symmetric region. (81c:78003)

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Eloe, P. W. (with Grimm, L. J.) Monotone iteration and Green's functions for boundary value problems. (81b:34012)

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- Hastings, Stuart (with McLeod, J. B.) A boundary value problem associated with the second Painlevé transcendent and the Korteweg-de Vries equation. **81i:34024**
- Hochstadt, Harry See Goldberg, Wallace, **81j:34043**
- Kard, P. Bessel functions in the theory of the one-dimensional wave equations. (Russian. Estonian and English summaries) **81j:34044**
- Lortz, D. (with Rehban, E.) Eigenvalue bounds for Hill's equation. **81i:34025**
- Marshall, E. A. On the exact analytical solution of the Poisson-Boltzmann equation. **81d:34024**
- Martínez-Amores, Pedro See Cañada, A., **81f:34031**
- McLeod, J. B. See Hastings, Stuart, **81i:34024**
- Rehban, E. See Lortz, D., **81i:34025**
- Utz, W. R. Existence of solutions of a generalized Blasius equation. **81g:34030**

secondary classifications:

- Browne, Patrick J. (with Sleeman, B. D.) Applications of multiparameter spectral theory to special functions. (**81d:33006**)
- Heading, J. Properties of some generalized hypergeometric functions governing coupling at transition points. (**81e:33007**)
- Sheffer, I. M. On a class $W[k, s; C_0]$ of polynomial sets. I. (**81d:33011**)
- Sleeman, B. D. See Browne, Patrick J., (**81d:33006**)
- Suhin, M. A. Spectral theory and the index of elliptic operators with almost-periodic coefficients. (Russian) (**81f:35090**)
- Sumida, Toshikazu Trace formula for Hill's operators. (**81k:58039**)

34B99 None of the above, but in this section

- Buldyrev, V. S. (with Grigor'eva, N. S.) Uniform dispersion equation in the multichannel problem. (Russian. English summary) **81d:34025**
- Grigor'eva, N. S. See Buldyrev, V. S., **81d:34025**
- Hacırtaj, I. G. Transformation operators for boundary value problems. (Russian. Armenian and English summaries) **81m:34030**
- Otelbaev, M. The smoothness of solutions of pseudodifferential equations and separability of pseudodifferential operators. (Russian) (See **80f:35002**)
- Ramanujan, N. See Srivastava, U. N., **81m:34031**
- Srivastava, U. N. (with Ramanujan, N.) Differential inequalities and singular perturbation problems. **81m:34031**
- Tjurin, V. M. Invertibility of linear differential operators with almost periodic coefficients in some function spaces. (Russian) **81k:34021**

34Cxx Qualitative theory

- Marzec, C. J. (with Spiegel, E. A.) Ordinary differential equations with strange attractors. **81j:34045**
- Spiegel, E. A. See Marzec, C. J., **81j:34045**

secondary classifications:

- Batterson, Steve Constructing Smale diffeomorphisms on compact surfaces. (**81a:58040**)
- Dumortier, Freddy ★Singularities of vector fields. (**81k:58050**)
- Fransethal, James C. ★Introduction to population modeling. (**81e:92007**)
- (Holmes, Philip J.) See New approaches to nonlinear problems in dynamics, (**81h:00006**)
- Conference:
- New Approaches to Nonlinear Problems in Dynamics ★New approaches to nonlinear problems in dynamics. (**81h:00006**)
- Dynamics ★New approaches to nonlinear problems in dynamics. (**81h:00006**)
- New approaches to nonlinear problems in dynamics ★New approaches to nonlinear problems in dynamics. (**81h:00006**)
- Pacific Grove, Calif. ★New approaches to nonlinear problems in dynamics. (**81h:00006**)

34C05 Location of integral curves, singular points, limit cycles

- Afanasyeva, M. A. (with Egorov, I. G.) On the limit cycles of a dynamical system of second order. (Russian) **81c:34021**
- Andreev, A. F. ★Особые точки дифференциальных уравнений. (Russian) [Singular points of differential equations] **81j:34046**
- Aponin, Ju. M. Asymptotic estimate of the error in the calculation of the separatrix of a system of two ordinary differential equations. (Russian) **81j:34047**
- Barugola, Alexandre Singularités non élémentaires de systèmes dynamiques plans dans un cas non analytique. **81f:34032**
- Bautin, N. N. Estimation of the number of algebraic limit cycles of the system $\dot{x} = P(x, y), \dot{y} = Q(x, y)$ with algebraic right-hand sides. (Russian) **81f:34033**
- Chen, Lan Sun (with Wang, Ming Shu) The relative position, and the number, of limit cycles of a quadratic differential system. (Chinese. English summary) **81g:34031**
- Demisov, V. S. Limit cycles of an autonomous system. (Russian) **81b:34022**
- Diener, Francine Les équations $cx'' + (x^2 - 1)x^{(4)} + x = a$. **81j:34048**
- Egorov, I. G. See Afanasyeva, M. A., **81c:34021**
- Filippov, A. F. Study of a system of differential equations with two intersecting lines of discontinuity. (Russian. English summary) **81f:34034**
- Gl'berman, Ju. I. On special trajectories of continuous piecewise-affine systems. (Russian) **81j:34049**
- González-Velasco, Enrique A. The use of projective space in the study of polynomial vector fields at infinity. **81f:34035**
- Grigor'ev, M. P. Solution of the problem of center in one case. (Russian) **81c:34022**
- Qualitative study of integral curves in the large of a certain system. (Russian) **81c:34023**
- Hale, Jack K. Remarks on bifurcation theory in differential equations. **81j:34050**
- Hartman, C. S. Separatrices and singular points. **81i:34026**
- Huang, Ke Cheng On the existence of limit cycles of the system $dx/dt = h(y) - F(x), dy/dt = -g(x)$. (Chinese) **81m:34032**

- Kutukova, L. T. Nonlocal existence theorems for the normalized integral. (Russian) **81c:34024**
- Mumlinov, N. S. Qualitative investigation of a first-order differential equation of the second degree in the case of a singular solution. (Russian) **81j:34051**
- Ottay, J. P. An extension of the Van der Pol oscillator. **81c:34021**
- Study of a nonlinear perturbed oscillator. **81j:34052**
- Pyžikova, N. V. A case of equichronous systems. (Russian. English summary) **81g:34033**
- Reyn, J. W. Generation of limit cycles from separatrix polygons in the phase plane. **81m:34033**
- Ryčkov, G. S. Uniqueness of the limit cycle of the equation $(y - P_3(x))\dot{y} = P_1(x, y)$. (Russian) **81f:34036**
- Sadovnikov, E. G. (with Tezin, A. M.) Limit cycles around intersecting closed lines of contact. (Russian) **81k:34022**
- Sadovskii, A. P. A criterion for the existence of a center for a system with homogeneous right-hand sides. (Russian. English summary) **81m:34034**
- Saito, Toshiya Solutions of $x'' = t^{2\alpha-2}x^{1+\alpha}$ with movable singularity. **81a:34031**
- Šakirova, Ju. S. The dependence of qualitative portraits of the equation $dz/d\theta = P(\theta, z)/Q(\theta, z)$ on the choice of the separatrix. (Russian) **81c:34025**
- Shi, Song Ling A concrete example of the existence of four limit cycles for plane quadratic systems. **81f:34037**
- Tezin, A. M. On the measures and orders of smallness of integral curves in a neighborhood of a singular point. (Russian) **81g:34033**
- Zero and infinite orders of smallness of integral curves determined by generalized first-order differential equations. (Russian) **81m:34035**
- See also Sadovnikov, E. G., **81k:34022**
- Villari, Gabriele Liénard limit cycle and controllability. (Italian. English summary) **81k:34023**
- Wang, Lian See Wang, Mu Qiu, **81m:34036**
- Wang, Ming Shu See Chen, Lan Sun, **81g:34031**
- Wang, Mu Qiu (with Wang, Lian) On a group of differential equations on the cylinder. I. (Chinese) **81m:34036**
- Žermolenko, V. N. On B. V. Bulgakov's problem of the maximum deviation of a second-order oscillatory system. (Russian. English summary) **81k:34036**
- Zhou, Yu Rong The existence of limit cycles of nonlinear oscillating equations. (Chinese) **81h:34037**

secondary classifications:

- Argémi, José Sur les points singuliers de certains champs de gradients polynomiaux. (Italian summary) (**81e:58040**)
- Atamanov, P. S. Limit cycles of certain differential equations and their corresponding geometric interpretation. (Russian) (**81h:58052**)
- Chow, Shui Nee (with Hale, Jack K.; Mallet-Paret, John) An example of bifurcation to homoclinic orbits. (**81m:58056**)
- Escher, Claus Models of chemical reaction systems with exactly evaluable limit cycle oscillations. (**81d:80011**)
- Hale, Jack K. See Chow, Shui Nee; et al., (**81m:58056**)
- Hsu, C. S. A theory of index for point mapping dynamical systems. (**81h:58032**)
- Jaglom, I. M. (with Rombe, I. A.) Geometric representation of equations of population dynamics (the case of sex-linked characteristics). (Russian) (**81h:92010**)
- Källén, E. (with Wiin-Nielsen, A. C.) Nonlinear, low order interactions. (Russian summary) (**81k:86006**)
- Kashiwara, Masaki (with Kawai, Takahiro) The theory of holonomic systems with regular singularities and its relevance to physical problems. (**81i:58037**)
- Kawai, Takahiro See Kashiwara, Masaki, (**81i:58037**)
- Kinjapin, S. D. A bifurcation in a relay system. (**81a:93076**)
- Mallet-Paret, John See Chow, Shui Nee; et al., (**81m:58056**)
- Mangel, Marc Small fluctuations in systems with multiple limit cycles. (**81e:58043**)
- Ottay, J. P. A perturbation method for a set of purely nonlinear differential equations. (**81c:34037**)
- Palm, Enok (with Tveit, Morten) On coupled van der Pol equations. (**81k:70016**)
- Peterson, Eric L. A limit cycle interpretation of a mosquito circadian oscillator. (**81d:92002**)
- Piljugin, V. B. Investigation of a system with a triple zero characteristic root. (Russian) (**81k:58056**)
- Power, Henry M. The Lotka-Volterra equations. Conclusions from a coordinate transformation. (**81f:92032**)
- Ramis, J.-P. Solutions Gévrey des équations différentielles à points singuliers irréguliers. (**81j:58008**)
- Read, Thomas T. Second-order differential equations with small solutions. (**81m:34009**)
- Rombe, I. A. See Jaglom, I. M., (**81h:92010**)
- Schnakenberg, J. Simple chemical reaction systems with limit cycle behaviour. (**81f:35013**)
- Shimizu, T. Limit cycles and constants of motion in dissipative systems. (**81h:58043**)
- Sinha, A. S. C. Enzyme kinetics with backward reaction. (**81m:92028**)
- Širokov, Ju. M. Strongly singular potentials in one-dimensional quantum mechanics. (Russian. English summary) (**81d:81018**)
- Sparrow, C. Bifurcation and chaotic behaviour in simple feedback systems. (**81e:58038**)
- Tveit, Morten See Palm, Enok, (**81k:70016**)
- Uslenghi, Piergiorgio L. E. An introduction to some mathematical techniques for nonlinear problems. (**81m:00016**)
- Wiin-Nielsen, A. C. See Källén, E., (**81k:86006**)
- Wulffman, Carl E. Limit cycles as invariant functions of Lie groups. (**81f:35016**)

34C10 Zeros, discontinuity, oscillation and comparison of solutions

- Abdel Karim, Rahmi Ibrahim Ibrahim On the solutions of quasilinear differential equations of the fifth order. (Arabic summary) **81j:34053**
- Ahmad, Shair (with Lazer, Alan C.) On n -th order Sturmian theory. **81c:34026**
- (with Lazer, Alan C.) An extension of Sturm's comparison theorem to a class of nonselfadjoint second-order systems. **81g:34034**

- Aripov, M. Some properties of solutions of a nonlinear ordinary differential equation of Emden-Fowler type. (Russian) **81j:34054**
- Bartušek, Miroslav On zeros of solutions of the differential equation $y'' + f(t, y)g(y') = 0$. **81a:34032**
- Monotonicity theorems for second order nonlinear differential equations. **81j:34037**
- Čanturija, T. A. Integral tests for oscillation of the solutions of higher-order linear differential equations. I. (Russian) **81j:34055a**
- Integral tests for oscillation of the solutions of higher-order linear differential equations. II. (Russian) **81j:34055b**
- Variability of all solutions of odd-order linear differential equations. (Russian) **81m:34038**
- Chan, C. Y. Sturmian theorems for systems of differential equations. **81e:34027**
- Chen, Lu San Remarks on the oscillation theorem for a nonlinear even order damped differential equation. (Italian summary) **81a:34033**
- (with Yeh, Cheh Chih) Oscillation theorems for second order nonlinear differential equations with an "integrally small" coefficient. **81m:34039**
- Cheng, Sui Sun Systems conjugacy of a pair of second order nonhomogeneous differential equations. **81b:34023**
- Deimling, Klaus (with Lakshmikantham, V.) Quasisolations and their role in the qualitative theory of differential equations. **81j:34056**
- Elias, Uri Oscillatory solutions and extremal points for a linear differential equation. **81e:34027**
- Erbe, L. Integral comparison theorems for third order linear differential equations. **81e:34022**
- Hille-Wintner type comparison theorem for selfadjoint fourth order linear differential equations. **81b:34038**
- Eigen, Garret J. (with Lewis, Roger T.) A Hille-Wintner comparison theorem for second order differential systems. **81j:34058**
- (with Taylor, W. E., Jr.) Wronskians and subspaces of certain fourth order differential equations. **81j:34057**
- Falerman, M. An oscillation theorem for a two-parameter system of differential equations. **81b:34024**
- Flisowski, Andrzej Some asymptotic properties of the solutions of the differential equation $\ddot{x} + f_1(x, \dot{x}) \dot{x} + g_1(x, \dot{x}) = 0$, I, II. (Polish. Russian and English summaries) **81j:34059**
- Gera, Milan Über die Untermengen der Lösungen der Gleichung $x'' + a(t)x' + b(t)x + c(t)x = 0$, $c(t)x > 0$. (Russian summary) **81m:34040**
- Grammatikopoulos, M. K. Oscillation theorems for second order ordinary differential inequalities and equations with alternating coefficients. **81k:34024**
- Háček, Miloš A note on higher monotonicity properties of certain Sturm-Liouville functions. **81m:34041**
- Hartman, Philip Oscillation criteria for selfadjoint second-order differential systems and "principal sectional curvatures". **81a:34034**
- Hell, Erhard On an oscillation criterion of Hartman, Wintner and Potter. **81f:34038**
- Hallica, Jiří Der verallgemeinerte Ljapunovsche Oszillationssatz. (Czech summary) **81j:34028**
- Holeček, Josef Über einige Eigenschaften der Separation der Nullstellen von Lösungen der Gleichung $y'' = Q(t)y$ und der sie begleitenden Gleichungen. (Czech and Russian summaries) **81m:34042**
- Howard, H. C. Oscillation and nonoscillation criteria for nonhomogeneous differential equations. **81e:34028**
- Islamov, G. G. (with Šneiberg, I. Ja.) Existence of nonnegative solutions of linear differential equations. (Russian) **81e:34023**
- Ito, A. R. Asymptotic behavior of the solutions of the radial Schrödinger equation with oscillating potential for the zero value of the energy. (Russian) **81e:34024**
- Johnson, Russell A. Linear differential equations with interval spectrum. **81j:34060**
- Kartsatos, Athanasios G. (with Walters, Terry) Some oscillation results for matrix and vector differential equations with forcing term. **81f:34039**
- The oscillation of a forced equation implies the oscillation of the unforced equation—small forcings. **81j:34061**
- Koener, Marvin (with Travis, C. C.) Sturmian theory for a class of nonselfadjoint differential systems. **81j:34035**
- Kreith, Kurt (with Kusano, Takasi; Naito, Manabu) Oscillation criteria for weakly superlinear differential equations of even order. **81m:34043**
- Kusano, Takasi See Kreith, Kurt; et al., **81m:34043**
- Laitochová, Jitka On conjugacy functions of second-order linear differential equations. **81j:34036**
- Lakshmikantham, V. See Deimling, Klaus, **81j:34056**
- Lazer, Alan C. See Ahmad, Shair, **81e:34026** and Ahmad, Shair, **81j:34034**
- Lewis, Roger T. See Eigen, Garret J., **81j:34058**
- Mingarelli, Angelo B. Some extensions of the Sturm-Picone theorem. **81k:34025**
- Naito, Manabu See Kreith, Kurt; et al., **81m:34043**
- Nayak, S. K. See Parhi, N., **81j:34037**
- Onuchic, Nelson (with Spezaniello, Adalberto) Qualitative properties of certain ordinary differential systems. **81m:34044**
- Parhi, N. (with Nayak, S. K.) On nonoscillatory behaviour of solutions of nonlinear differential equations. (Italian summary) **81j:34037**
- Philos, Ch. G. (with Staikos, Vasilios Anast.) Nonslow oscillations with damping. **81m:34045**
- Radochová, Drahošlava (with Tryhuk, Václav) Asymptotic and oscillation properties of third order linear differential equations. **81m:34046**
- Ratajczak, Zbigniew On monotone solutions of a system of n linear nonhomogeneous differential equations. **81j:34062**
- Ravaglia, Carlo On the comparison theorem. (Italian. English summary) **81m:34047**
- Regenda, Jan Oscillation criteria for fourth-order linear differential equations. (Russian summary) **81a:34035**
- Ripeanu, Dumitru Sur les racines des solutions de l'équation $y'' + p_1(x)y' + p_2(x)y = 0$. **81e:34029**
- Schwarz, Binyamin Disconjugacy of complex second-order matrix differential systems. **81j:34063**
- Shalajbo, Č. A. On the oscillatory and nonoscillatory natures of the solutions for a system of nonlinear differential equations. (Russian) **81k:34026**
- Šneiberg, I. Ja. See Islamov, G. G., **81e:34023**
- Šoltes, Vincent Oscillatory properties of solutions of a fourth-order nonlinear differential equation. (Russian summary) **81a:34036**
- Spezaniello, Adalberto See Onuchic, Nelson, **81m:34044**
- Staikos, Vasilios Anast. See Philos, Ch. G., **81m:34045**
- Staněk, Svatoplav A note on disconjugate linear differential equations of the second order with periodic coefficients. (Czech and Russian summaries) **81j:34064**
- On the properties of the fundamental dispersions of the equation $y'' = \lambda q(t)y$. (Czech and Russian summaries) **81k:34027**
- Tatarkiewicz, Krzysztof L'application d'une méthode géométrique à l'étude des équations différentielles ordinaires du second ordre. **81e:34030**
- Sur les équations qui devraient osciller. **81m:34048**
- Taylor, W. E., Jr. See Eigen, Garret J., **81j:34057**
- Travis, C. C. See Koener, Marvin, **81j:34035**
- Trench, William F. Interpolating functions associated with second-order differential equations. **81f:34040**
- Tryhuk, Václav See Radochová, Drahošlava, **81m:34046**
- Větek, Vladimír On a distribution of zeros of solutions of a fourth-order iterated linear differential equation. (Czech and Russian summaries) **81b:34025**
- Vosmanský, Jaromír The distribution of zeros of the solutions of second-order linear differential equations. (Russian) **81d:34026**
- Walters, Terry A characterization of positive linear functionals and oscillation criteria for matrix differential equations. **81a:34037**
- See also Kartsatos, Athanasios G., **81f:34039**
- Yeh, Cheh Chih See Chen, Lu San, **81m:34039**
- Zima, Kazimierz A certain theorem on the oscillation of solutions of equation $(p(t)x')' + q(t)x = 0$. **81k:34028**
- secondary classifications:
- Bugir, M. K. A remark on local criteria for nonoscillation of systems of equations. (Russian. English summary) **81m:34016**
- Chen, Lu San (with Yu, Fong Ming) Sufficient conditions for nonoscillation of forced n -th order retarded functional differential equations. (Italian summary) **81g:34093**
- Chukwu, Ethelbert N. (with Háček, O.) Disconjugacy and optimal control. **81b:49006**
- Ehbert, A. Concavity of the zeros of Bessel functions. **81d:33004**
- Eigen, Garret J. (with Lewis, Roger T.) Positive functionals and oscillation criteria for second order differential systems. **81b:34051**
- Háček, O. See Chukwu, Ethelbert N., **81b:49006**
- Hallam, Thomas G. Persistence in Lotka-Volterra models of food chains and competition. **81j:92045**
- Knab, Otto Eine Bemerkung zur lokalen Werteverteilung der Lösungen linearer Differentialgleichungen. (English summary) **81g:34008**
- Lewis, Roger T. See Eigen, Garret J., **81b:34051**
- Martiniuk, A. A. (with Matvičuk, K. S.) Comparison principle for a system of differential equations with a rapidly rotating phase. (Russian) **81a:34045**
- Matvičuk, K. S. See Martiniuk, A. A., **81a:34045**
- Olah, Rudolf Note on the oscillation of linear delay differential equations. **81m:34102**
- Onuchic, Nelson (with Pavlu, Luiz Carlos) Invariance, asymptotic behavior and stability properties for ordinary differential equations. **81m:34066**
- Pavlu, Luiz Carlos See Onuchic, Nelson, **81m:34066**
- Peterson, Allan C. Focal Green's functions for fourth-order differential equations. **81i:34023**
- Philos, Ch. G. Bounded oscillations generated by retardations for differential equations of arbitrary order. **81m:34103**
- Ridenhour, Jerry Lyapunov-type functions for n th-order linear ordinary differential equations. **81f:34019**
- Shreve, Warren E. Oscillation in first order matrix differential equations with lag. **81m:34104**
- Sleeman, B. D. Klein oscillation theorems for multiparameter eigenvalue problems in ordinary differential equations. **81b:34021**
- Vencko, Jozef Bemerkungen zu einer Randwertaufgabe in drei Punkten für die Differentialgleichung dritter Ordnung. (Slovak and Russian summaries) **81b:34011**
- Yeh, Cheh Chih An oscillation criterion for second order nonlinear differential equations with functional arguments. **81i:34064**
- Yu, Fong Ming See Chen, Lu San, **81g:34093**

34C11 Growth, boundedness of solutions

- Abduvalitov, H. A. A priori estimates for bounded solutions of a system of two nonlinear differential equations. (Russian) **81d:34027**
- Bank, Steven B. Some representation theorems for solutions of nonlinear second-order differential equations. **81f:34041**
- Bertolino, Miroslav Sur les infinis des solutions de certaines équations différentielles. **81j:34065**
- Erbe, L. Comparison theorems of Hille-Wintner type for third-order linear differential equations. **81i:34029**
- Flisowski, Andrzej On boundedness of the solutions of Liénard's equation. (Polish. Russian and English summaries) **81j:34038**
- Asymptotic properties of the solutions of Liénard's equation. (Polish. Russian and English summaries) **81j:34039**
- Gavalas, George R. On the subdominant solution of a second-order differential equation with a complex parameter. **81g:34040**
- Graef, John R. Limit circle criteria and related properties for nonlinear equations. **81e:34025**
- Gričai, A. G. Monotonicity properties of solutions of systems of nonlinear differential equations. (Russian) **81e:34026**
- Kajumov, T. On the asymptotic behavior of solutions of a nonlinear ordinary differential equation. (Russian) **81k:34029**

- Komatsu, Hikosaburo. Ultradifferentiability of solutions of ordinary differential equations. **81j:34066**
- Krečtov, G. S. Boundaries for the solutions of a second-order linear differential equation. (Russian. English summary) **81f:34042**
- Kreith, Kurt (with Kusano, Takasi). Extremal solutions of general nonlinear differential equations. **81b:34026**
- Extremal solutions for a class of nonlinear differential equations. **81d:34028**
- Kusano, Takasi. See Kreith, Kurt, **81b:34026**
- Myshchyna, S. M. Limit properties of solutions of a nonlinear system of ordinary differential equations. (Russian. Kazakh summary) **81f:34043**
- Sofronov, E. T. On the boundedness of the solutions of a system of three differential equations. (Russian) **81c:34031**
- Štaněk, Svatoslav. On the structure of the second-order periodic linear differential equations with the same characteristic multipliers. (Czech and Russian summaries) **81e:34030**

secondary classifications:

- Abdel Karim, Rahani Ibrahim Ibrahim. On the solutions of quasilinear differential equations of the fifth order. (Arabic summary) **(81j:34053)**
- Erbe, L. Hille-Wintner type comparison theorem for selfadjoint fourth order linear differential equations. (Russian. Kazakh summary) **(81h:34038)**
- Kato, Junji. An autonomous system whose solutions are uniformly ultimately bounded but not uniformly bounded. **(81m:34072)**
- Lakshmikantham, V. Comparison results for reaction-diffusion equations in a Banach space. **(81c:35065)**
- Obt, Chiké. Analytical theory of nonlinear oscillations. IX. Limit oscillations and unbounded solutions of equations of the second order. **(81c:34032)**
- Palamides, P. K. (with Sficas, Y. G.; Staikos, Vasilios Anast.) Asymptotic behavior of Carathéodory systems. Anti-Lyapunov method. **(81g:34062)**
- Ratajczak, Zbigniew. On monotone solutions of a system of n linear nonhomogeneous differential equations. **(81j:34062)**
- Sficas, Y. G. See Palamides, P. K.; et al., **(81g:34062)**
- Staikos, Vasilios Anast. See Palamides, P. K.; et al., **(81g:34062)**

34C15 Nonlinear oscillations

- Atherton, D. P. (with Dorrah, H. T.) A survey on nonlinear oscillations. **81g:34041**
- Čanturija, T. A. Monotone and oscillatory solutions of higher-order ordinary differential equations. (Russian) **81g:34042**
- Čelanskov, B. (with Simeonova, D.) Oscillations of a class of autonomous systems in the case of resonance of mixed second and third rank. (Bulgarian. Russian and English summaries) **81c:34032**
- Cohen, Donald S. (with Neu, John C.) Interacting oscillatory chemical reactors. **81c:34027**
- Davis, Stephen H. (with Rosenblat, S.) A quasiperiodic Mathieu-Hill equation. **81b:34027**
- Dorrah, H. T. See Atherton, D. P., **81g:34041**
- Egorov, I. G. (with Petrova, M. P.) Qualitative study of the behavior of the solutions to an equation of nonlinear oscillations. (Russian) **81c:34033**
- Gorbatenko, S. A. (with Grumondz, V. T.) An application of G. V. Kamenkov's method in the investigation of nonlinear oscillations. (Russian) **81h:34039**
- Grumondz, V. T. See Gorbatenko, S. A., **81h:34039**
- Hoppensteadt, Frank C. Computer studies of nonlinear oscillators. **81b:34028**
- Howard, Louis N. Nonlinear oscillations. **81c:34029**
- Kaiser, F. Nonlinear oscillations (limit cycles) in physical and biological systems. **81m:34049**
- Karkinbaev, I. (with Perestjuk, M. O.) On the question of the justification of the application of asymptotic methods to the study of impulse systems. (Russian) **81h:34040**
- Kubiček, Milan. See Schreiber, Igor; et al., **81m:34050**
- Kulikov, A. N. A remark on the properties of two-dimensional invariant manifolds. (Russian) **81j:34067**
- Lapinskii, V. N. An iteration method in the theory of nonlinear oscillations. (Russian. English summary) **81f:34044**
- Marek, Miloš. See Schreiber, Igor; et al., **81m:34050**
- Mitropol'skii, Ju. A. (with Samoilenko, A. M.) Asymptotic methods in the theory of multifrequency oscillations. (Russian) **81f:34045**
- Neu, John C. See Cohen, Donald S., **81c:34027**
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- Perestjuk, M. O. See Karkinbaev, I., **81h:34040**
- Petrova, M. P. See Egorov, I. G., **81c:34033**
- Rosenblat, S. See Davis, Stephen H., **81b:34027**
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34C20 Transformation and reduction of equations and systems

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- Sadovskii, A. P. Formal transformations of two-dimensional dynamical systems. (Russian. English summary) **81b:34029**
- Samovol, V. S. Linearization of systems of differential equations in the neighborhood of invariant toroidal manifolds. (Russian) **81j:34068**
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34C27 Almost-periodic solutions

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- Bass, J. (with Ravichandran, N.; Srinivasan, V.) Stationary solutions of differential equations. 81g:34054
- Bočkarov, P. M. On the existence of almost-periodic solutions of second-order linear equations with almost-periodic coefficients. (Russian) 81d:34035
- Liu, Zhen Sheng The existence of an almost periodic solution of a quasilinear system. (Chinese. English summary) 81d:34036
- Manfredi, Bianca On certain asymptotic almost periodic motions. (Italian. English summary) 81m:34054
- Nakajima, Fumio See Sell, George R., 81j:34075
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34C28 Other types of "recurrent" solutions

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34C29 Averaging method [See also 47H10.]

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- Golec, V. L. See Golec, B. I.; et al., 81j:34076
- Karkinbaev, I. Periodic solutions of a nonautonomous system with switching. (Russian) 81b:34038
- On the question of justifying the averaging method for systems of differential equations with impulse action. (Russian) 81b:34039
- Kur'ma, V. M. Application of the averaging method in the investigation of random oscillations of rigid and elastic bodies. (Russian. Bulgarian and English summaries) 81a:34040
- Loginov, V. M. A method for averaging of integro-differential equations. (Russian) 81m:34056
- Martinkuk, A. A. A theorem of the type of N. N. Bogolubov's first averaging theorem. (Russian) 81b:34040
- Generalization of the second theorem of N. N. Bogolubov's averaging principle. (Russian) 81b:34041
- Ottay, J. P. A perturbation method for a set of purely nonlinear differential equations. 81c:34037
- Petišin, R. I. See Golec, B. I.; et al., 81j:34076
- Polesja, I. V. The averaging method and bifurcations of autonomous differential systems. (Russian) 81g:34058

secondary classifications:

- Andreev, A. S. (with Šančenko, N. I.; Šul'gin, A. M.) Application of the averaging method and the method of Ljapunov functions in the investigation of the motion of some mechanical systems. (Russian) (81h:93071)
- Bainov, D. D. (with Miluševa, S. D.) Application of the averaging method for the solution of multipoint boundary value problems with a nonlinear boundary condition for a class of integro-differential equations that contain multiple integrals. (Russian) (81b:45012)
- See also Miluševa, S. D., (81b:45013)
- Bignu, Ja. I. (with Fodčuk, V. I.) Application of the averaging method for studying a class of multifrequency systems with lag. (Russian) (81c:34051)
- Burd, V. Š. Stability under constantly acting perturbations and the averaging principle over an infinite interval. (Russian) (81h:34047)
- Demin, V. G. See Vagner, E. A.; et al., (81g:70005)
- Eteev, V. P. (with Nagorev, B. M.) Convergence of series representing a class of periodic solutions of averaging equations of an external variant of the restricted elliptic three-body problem. (Russian. Tajiki summary) (81g:70010)
- Fodčuk, V. I. See Bignu, Ja. I., (81c:34051)
- Freidlin, M. I. The averaging principle and theorems on large deviations. (Russian) (81k:60059)

Gaeva, E. A. (with Homa, G. P.) Averaging in first-order hyperbolic integro-differential systems. (Russian) (81c:45021)

Grammatikopoulos, M. K. Oscillation theorems for second order ordinary differential inequalities and equations with alternating coefficients. (81c:34024)

Homa, G. P. Averaging of hyperbolic integro-differential systems with fast and slow variables. (Russian) (81c:45022)

See also Gaeva, E. A., (81c:45021)

Karkinbaev, I. (with Perestjuk, M. O.) Application of the Krylov-Bogoljubov asymptotic method to the study of systems with impulse action. (Ukrainian. English and Russian summaries) (81c:34043)

Konkina, L. I. See Vagner, E. A.; et al., (81g:70005)

Martinkuk, A. A. The averaging principle in nonlinear mechanics. (Russian) (81g:70022)

Miluseva, S. D. (with Bainov, D. D.) Application of the averaging method for the solution of multipoint boundary value problems with a nonlinear boundary condition for systems of differential and integro-differential equations that are not solved for the derivative. (Russian) (81b:45013)

See also Bainov, D. D., (81b:45012)

Murdoch, James (with Robinson, R. Clark) Qualitative dynamics from asymptotic expansions: local theory. (81b:59053)

Nagorev, B. M. See Ericev, V. P., (81g:70010)

Perestjuk, M. O. See Karkinbaev, I., (81c:34043)

Petrova, O. M. See Zabreiko, P. P., (81b:34032)

Plotnikov, V. A. Partial averaging of differential inclusions. (Russian) (81j:34023)

Rakin, L. V. Application of the averaging method in the investigation of a countable system of differential equations. (Russian. Kazakh summary) (81a:34013)

Robinson, R. Clark. See Murdoch, James, (81b:59053)

Sancenko, N. I. See Andreev, A. S.; et al., (81h:93071)

Sobolev, V. A. See Strygin, V. V., (81g:70003)

Strygin, V. V. (with Sobolev, V. A.) The method of integral manifolds in the problem of the acceptability of the solution of precessional equations of gyroscopic systems. (Russian) (81g:70003)

Sul'ga, A. M. See Andreev, A. S.; et al., (81h:93071)

Vagner, E. A. (with Demin, V. G.; Konkina, L. I.) Averaging methods in solid body dynamics. (Russian) (81g:70005)

Zabreiko, P. P. (with Petrova, O. M.) Theorem on extension of bounded solutions for differential equations and the averaging principle. (Russian) (81b:34002)

34C30 Manifolds of solutions

Baris, Ja. S. Some integral manifolds of differential systems. (Russian) 81c:34038

(with Likova, O. B.) Approximate integral manifolds of systems of nonlinear differential equations. (Russian) 81m:34057

Brjuno, A. D. Formal and analytical integral sets. 81c:34039

Černý, V. E. Existence of closed trajectories in the neighborhood of an invariant torus. (Russian) 81a:34041

Iooss, G. Bifurcation of invariant tori in \mathbb{R}^3 . 81b:34050

Irwin, M. C. A new proof of the pseudostable manifold theorem. 81b:34051

Kulik, V. L. Existence and smoothness of an exponentially dichotomous invariant torus of dynamical systems. (Russian) 81b:34040

Likova, O. B. See Baris, Ja. S., 81c:34057

Ospenko, G. S. Bifurcation of dynamical systems near invariant manifolds. (Russian) 81j:34077

Wimmer, H. K. The equation $(g(x))_x Ax - Bg(x) = h(x)$. 81j:34078

secondary classifications:

Himmelberg, C. J. (with Van Vleck, F. S.) On the topological triviality of solution sets. (81g:34006)

Hoyle, Stephen L. Local solution manifolds for nonlinear equations. (81j:58030)

McLaughlin, John B. See Orszag, Steven A., (81d:58041)

Orszag, Steven A. (with McLaughlin, John B.) Evidence that random behavior is generic for nonlinear differential equations. (81d:58041)

Van Vleck, F. S. See Himmelberg, C. J., (81g:34006)

Wilson, F. Wesley, Jr. A uniform continuity condition which is equivalent to Coleman's conjecture. (81j:58065)

34C35 Dynamical systems [See also 54H20, 58Fxx, 70-XX.]

Abramović, S. M. See Leonov, G. A.; et al., 81b:34042

Burkina, L. I. See Leonov, G. A.; et al., 81b:34042

Elizarov, P. M. (with Emel'janov, A. N.) The nonalgebraic nature of certain varieties of differential equations. (Russian. English summary) 81j:34079

Emel'janov, A. N. See Elizarov, P. M., 81j:34079

Holmes, Philip J. (with Marsden, Jerrold E.) Qualitative techniques for bifurcation analysis of complex systems. 81b:34052

Hsu, C. S. On some global results of point mapping dynamical systems. 81m:34058

Huang, Wen Zao. Cauchy flows and the minimal set. (Chinese) 81b:34042

Ianro, N. (with Maffei, C.) Nonautonomous differential systems: several functions in the stability problem. 81j:34045

Kanevskii, A. Ja. Energy functions for nonautonomous differential equations. (Russian) 81g:34059

Korjakin, Ju. A. See Leonov, G. A.; et al., 81b:34042

Kozjaruk, A. E. See Leonov, G. A.; et al., 81b:34042

Kummer, M. Erratum: "On resonant nonlinearly coupled oscillators with two equal frequencies" [Comm. Math. Phys. 48 (1976), no. 1, 53-79; MR 54 #7965]. 81b:34041

Leonov, G. A. (with Abramović, S. M.; Burkina, L. I.; Kozjaruk, A. E.; Korjakin, Ju. A.; Raltman, F.) A method of reduction in the theory of dynamical systems with a cylindrical phase space and its application to the investigation of the stability of power systems. (Russian) 81b:34042

Ljubevskii, M. G. Dichotomy of linear extensions of dynamical systems. (Russian) 81b:34053

Maffei, C. See Ianro, N., 81j:34045

Marsden, Jerrold E. See Holmes, Philip J., 81b:34052

McCann, Roger C. Certain "nonlinear" dynamical systems are linear. 81b:34054

Neimark, Ju. I. The development of stochasticity in dynamical systems. (Russian) 81j:34080

Singular integral manifolds and the appearance of stochasticity in dynamical systems. (Russian) 81b:34043

Perelomov, A. M. Equilibrium configurations and small oscillations of some dynamical systems. 81b:34044

The simple relation between certain dynamical systems. 81m:34059

Raltman, F. See Leonov, G. A.; et al., 81b:34042

(Ščerbakov, B. A.) See Algebraic invariants of dynamic systems, 81j:34081

Sverdlove, Ronald. Vector fields defined by complex functions. 81c:34041

Tóth, Gábor. On the global triangularizability of planar differentiable dynamical systems. 81a:34042

Algebraic invariants of dynamic systems ★ Алгебраические инварианты динамических систем. (Russian) [Algebraic invariants of dynamic systems] 81j:34081

Dynamical systems ★ Алгебраические инварианты динамических систем. (Russian) [Algebraic invariants of dynamic systems] 81j:34081

secondary classifications:

Aarts, J. M. (with de Vries, J.) Local dynamical systems and their morphisms. (81b:54041)

Alzenman, Michael. On extensions of flows in the presence of sets of singularities. (81a:58043)

Bronstein, I. U. (with Černil, V. F.) Linear extensions that satisfy the Perron condition. II. (Russian) (81f:54022)

Černil, V. F. See Bronstein, I. U., (81f:54022)

Chicone, Carmen (with Swanson, R. C.) The spectrum of the adjoint representation and the hyperbolicity of dynamical systems. (81h:58047)

Churchill, Richard C. (with Rod, David L.) Pathology in dynamical systems, III.

Analytic Hamiltonians. (81b:58034)

Daja, Časlav. Quasi-almost-periodic motions of dynamical systems in a metric space. (Serbo-Croatian) (81j:54061)

Dankner, Alan. Axiom A dynamical systems, cycles and stability. (81g:58026)

Fomenko, A. T. See Miščenko, A. S., (81g:58014)

Fronteau, Jean. Vers une description non conservative de l'évolution en physique. (English summary) (81a:82027)

Gordon, A. Ja. An example of an analytic flow on a torus with a mixed spectrum. (Russian) (81m:58067)

Gruša, Miroslav. Dissipative dynamical systems of macroscopic physics. (81f:58024)

Grossi, P. R. A $Z \times Z$ structurally stable action. (81g:58020)

Guckenheimer, John. Symbolic dynamics and relaxation oscillations. (81j:58060)

Haken, H. Synergetics and bifurcation theory. (81j:58061)

Hsu, C. S. Theory of index for dynamical systems of order higher than two. (81m:58065)

Johnson, Russell A. Analyticity of spectral subbundles. (81c:58056)

Kandel, Abraham. Fuzzy dynamical systems and the nature of their solutions. (81b:03055)

Kapur, J. N. The effect of harvesting on competing populations. (81j:92035)

Knörner, Horst. Geodesics on the ellipsoid. (81h:58050)

Lorenz, Edward N. On the prevalence of aperiodicity in simple systems. (81f:58026)

Markus, Lawrence. Jets and genericity in qualitative dynamics. (81b:58040)

Marle, C. M. Action de groupes et séparation de variables pour les systèmes hamiltoniens. (English summary) (81b:58031)

Medved', Milan. Generic bifurcations of second order ordinary differential equations near closed orbits. (81k:58051)

Miščenko, A. S. (with Fomenko, A. T.) Integrability of Euler's equations on semisimple Lie algebras. (Russian) (81g:58014)

Mogollón, Ramón. On a class of continuous flows. (81b:54073)

Newhouse, Sheldon E. Lectures on dynamical systems. (81m:58028)

Polacki, V. N. The accumulation of perturbations in linear systems with respect to some coordinates. (Russian. English summary) (81b:34058)

Prilobko, N. P. Periodic solutions of a system with switching. (Russian) (81g:34051)

Robinson, R. Clark. Structural stability on manifolds with boundary. (81m:58041)

Rod, David L. See Churchill, Richard C., (81b:58034)

Rozet, I. G. Stability of some integral manifolds in a three-dimensional dynamical system. (Russian) (81m:58045)

Ruelle, David. Turbulent behavior in differentiable dynamical systems. (81j:58064)

Recent results on differentiable dynamical systems. (81j:58053)

Sobanski, M. Prolongations in generalized pseudodynamical systems. (81f:54024)

Sumbatov, A. S. Cyclic coordinates of conservative dynamical systems with two degrees of freedom. (Russian) (81c:70011)

Swanson, R. C. See Chicone, Carmen, (81h:58047)

Takens, Floris. Moduli and bifurcations; nontransversal intersections of invariant manifolds of vectorfields. (81m:58058)

de Vries, J. See Aarts, J. M., (81b:54041)

Wang, Lian (with Wang, Mu Qiu) V. I. Arnold's problem for $n=2$. (Chinese) (81b:58038)

Wang, Mu Qiu. See Wang, Lian, (81b:58038)

34C40 Equations and systems on manifolds [See mainly 58Fxx, 58Gxx.]

secondary classifications:

Bogojavlenskii, O. I. (with Novikov, S. P.) Finite-dimensional oscillatory models in the general theory of relativity and in gas dynamics. (Russian. English summary) (81d:85002)

Igol'ina, V. A. See Šapiro, Ju. L., (81m:58062)

Jackin, N. I. Erugin's theorem for linear differential equations on manifolds. (Russian) (81m:58039)

- Norikov, S. P. See Bogojavlenskii, O. I. (81d:25002)
 Sapito, Ja. L. (with Igolins, V. A.) Homomorphisms of quasigeodesic flows. (Russian) (81m:58062)
 Tsuchiya, Nobuo Lower semicontinuity of growth of leaves. (81f:57027)
 Wan, Yieh Hei Bifurcations of periodic orbits in autonomous systems. (81d:58043)

34C45 Method of integral manifolds

- Lopatn, O. K. See Mitropol'skii, Ju. A. (81m:34060)
 Mitropol'skii, Ju. A. (with Lopatin, O. K.) Asymptotic splitting of systems of differential equations. (Russian) 81m:34060

34C50 Method of accelerated convergence

34C99 None of the above, but in this section

- Grudo, E. I. A differential system with two purely imaginary roots of a characteristic equation. (Russian) 81j:34082
 Kiračikaja, E. F. Application of a computer for finding comitants of differential systems. (Russian) 81m:34061
 Mayes, Vivienne Some steady state properties of $(\int_0^t f(t)dt)/f(x)$. (See 81e:00004)
 Retziqi, L. Smooth reparametrization of differential equations. (Russian) 81d:34037

secondary classifications:

- Asačnikov, A. L. (with Belyh, L. N.) On mathematical modelling of a disease. (81m:92095)
 Belyh, L. N. See Asačnikov, A. L. (81m:92095)
 Dai, Lo Sheng Multiple steady states and solution of irreversible phase transitions with enzyme controlled membranes. (81m:92015)
 Grigorjan, S. D. Singularities of a homogeneous anisotropic model of type IX with a cosmological constant. (Russian) (81c:83013)
 Hallam, Thomas G. On bifurcation in ecosystem models. (81c:92012)
 Persistence in three-species communities containing a competitive subsystem. (81m:92051)
 Effects of cooperation on competitive systems. (81c:92013)
 Mori, Hazime Fractal dimensions of chaotic flows of autonomous dissipative systems. (81j:58056)
 Reiman, A. G. (with Semenov-Tjan-Sanskii, M. A.) A family of Hamiltonian structures, hierarchy of Hamiltonians and reduction for first-order matrix differential operators. (Russian) (81k:58037)
 Rinsler, Otto E. Chaotic oscillations: an example of hyperchaos. (81c:58048)
 Semenov-Tjan-Sanskii, M. A. See Reiman, A. G. (81k:58037)
 Ueda, Yoshitake Steady motions exhibited by Duffing's equation: a picture book of regular and chaotic motions. (81m:58055)
 Vidossich, Giovanni General differential equations. (Spanish. English summary) (81f:34018)

34Dxx Stability theory [See also 58F10, 93Dxx.]

secondary classifications:

- (Irtegov, V. D.) See Theory of stability and its applications. (81b:34003)
 (Matrosov, V. M.) See Theory of stability and its applications. (81b:34003)
 Stability ★Теория устойчивости и ее приложения. (Russian) [Theory of stability and its applications] (81b:34003)
 Theory of stability and its applications ★Теория устойчивости и ее приложения. (Russian) [Theory of stability and its applications] (81b:34003)

34D05 Asymptotic properties; characteristic exponents

- Abou-El-El, A. M. A. On the asymptotic stability of a certain n -dimensional nonlinear differential equation of fourth order. (Arabic summary) 81m:34062
 Bagdasarjan, L. A. See Simonjan, S. G. 81h:34057
 Becker, W. (with Gesztesy, F.; Mitter, Heinrich) On systems of periodic differential equations. 81m:34063
 Conti, Roberto On a class of asymptotically stable linear differential equations. 81g:34060
 D'Anna, Armando (with Maio, Alfonso; Monte, Anna-Maria) Limiting equations in asymptotic stability problems for nonautonomous differential equations. (Italian summary) 81d:34038
 Gesztesy, F. See Becker, W.; et al. 81m:34063
 Komornik, Josef Asymptotic behavior of solutions of nonautonomous Riccati equations. 81m:34064
 Kulikov, A. N. On the question of the uniqueness of the invariant manifold in the critical case. (Russian) 81g:34061
 Kurbatov, V. G. A remark on the stability of linear equations. (Russian) 81k:34034
 Kurnii, A. V. Stability of the solutions of a system of second-order linear differential equations with periodic coefficients. (Russian) 81d:34039
 Maio, Alfonso See D'Anna, Armando; et al. 81d:34038
 Mitter, Heinrich See Becker, W.; et al. 81m:34063
 Monte, Anna-Maria See D'Anna, Armando; et al. 81d:34038
 Omicchi, Nelson (with Táboas, P.) On the conditional asymptotic stability for a nonlinear ordinary differential equation. 81d:34040
 Palamides, P. K. (with Sficas, Y. G.; Staikos, Vasilios Anast.) Asymptotic behavior of Carathéodory systems. Anti-Lyapunov method. 81g:34062
 Polesja, I. V. Bifurcations of a singular point of multidimensional dynamical systems. (Russian) 81g:34063
 Rahimberdiev, M. I. (with Rozov, N. H.) Localization of a spectrum of a linear system of ordinary differential equations. (Russian. Kazakh summary) 81h:34055
 Rama Mohana Rao, M. (with Sree Hari Rao, V.) Uniform asymptotic stability of

impulsively perturbed nonlinear differential equations. 81h:34046

- Rozov, N. H. See Rahimberdiev, M. I. 81h:34055
 Sergeev, I. N. The interior of a set of systems of differential equations with a stable Liapunov exponent. (Russian) 81h:34056
 Invariance of central exponents with respect to perturbations which approach zero at infinity. (Russian) 81m:34065
 Sficas, Y. G. See Palamides, P. K.; et al. 81g:34062
 Šilo, A. P. A critical case of q pairs of purely imaginary roots. (Russian) 81h:34035
 Simonjan, S. G. (with Bagdasarjan, L. A.) Zones of instability of a one-dimensional periodic Dirac system. (Russian) 81h:34057
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 Staikos, Vasilios Anast. See Palamides, P. K.; et al. 81g:34062
 Táboas, P. See Omicchi, Nelson. 81d:34040
 Visentin, F. Limiting equations in the problem of total stability. (Italian summary) 81j:34083

secondary classifications:

- Baris, Ja. S. The reduction principle in a problem of conditional stability. (Russian) (81a:34056)
 Beaudoin, Y. (with Nerenberg, M. A. H.) Computer codes for computational assistance in the study of asymptotic stability. (81k:93056)
 Bogdanova, M. Ju. A criterion for the instability of the zero solution of a stationary periodic Dirac system. (Russian) (81h:34057)
 Bruni, Carlo (with Gandolfi, Alberto; Germani, A.) A bounded rate model for mass action multiple binding processes: stability analysis. (81m:92064)
 Churchill, Richard C. (with Selgrade, J. F.) On the Poincaré criterion for asymptotic stability. (81g:58031)
 Cronin-Scanlon, Jane A criterion for asymptotic stability. (81h:34043)
 Do Sanh Stability of stationary motion of mechanical systems. (Polish and Russian summaries) (81c:70013)
 Filippov, A. F. Stability for differential equations with discontinuous and multivalued right-hand sides. (Russian) (81m:34013)
 Differential equations whose right-hand side is discontinuous on intersecting surfaces. (Russian) (81m:34014)
 Gandolfi, Alberto See Bruni, Carlo; et al. (81m:92064)
 Germani, A. See Bruni, Carlo; et al. (81m:92064)
 Guseinov, V. A. Relay sampled-data systems with constant disturbance. (Russian) (81m:93052)
 Ianro, N. (with Maffei, C.) Nonautonomous differential systems: several functions in the stability problem. (81h:34045)
 Maffei, C. See Ianro, N. (81h:34045)
 McCann, Roger C. Certain "nonlinear" dynamical systems are linear. (81h:34054)
 Michel, Anthony N. See Miller, Richard K. (81b:93052)
 Miller, Richard K. (with Michel, Anthony N.) Asymptotic stability of systems: results involving the system topology. (81b:93052)
 Mynbaeva, S. M. Study of a nonlinear system of ordinary differential equations. (Russian) (81k:34011)
 Nerenberg, M. A. H. See Beaudoin, Y. (81k:93056)
 Nikolenko, I. V. Stability of the transient motion of a class of nonholonomic systems. (Ukrainian. English and Russian summaries) (81f:70021)
 Nuržauov, T. The property of having a fixed sign for forms of higher order. (Russian) (81a:93074)
 Ozriner, A. S. On the stability theory of unsteady motions. (Russian) (81h:93074)
 Popov, V. N. (with Rudnickii, M. P.) Analysis of the stability "in the large" of a second-order nonlinear system using an approximation of the nonlinearity by a function of relay type. (Russian) (81g:93078)
 Read, Thomas T. Second-order differential equations with small solutions. (81m:34009)
 Rudnickii, M. P. See Popov, V. N. (81g:93078)
 Selgrade, J. F. See Churchill, Richard C. (81g:58031)
 Skar, Sherwin J. Synchronous solutions of power systems: existence, uniqueness and stability. (81k:93052)
 Starum, I. I. A method of studying linear systems. (Russian) (81h:34006)
 Tejumola, H. O. On a Liénard type matrix differential equation. (81f:34050)
 Winiński, Henryk On solving the system of n first-order ordinary linear differential equations (and the estimation of the solution). (81j:34008)
 Zinčenko, I. L. The structure of asymptotically stable invariant sets of periodic complex analytic systems of differential equations. (Russian. English summary) (81f:34011)

34D10 Perturbations

- Burd, V. Š. Stability under constantly acting perturbations and the averaging principle over an infinite interval. (Russian) 81h:34047
 El Oualidi, H. M. Further stability conditions for controllably periodic perturbed solutions. 81j:34084
 Falla, A. I. Investigation on stability at constantly acting perturbations in a special "neutral" case. (Russian) 81g:34064
 Kirchgraber, Urs A note on Liapunov's center theorem. 81c:34042
 Krečeto, G. S. Preservation of the property of stability in the presence of two zero roots and a one-parameter family of periodic solutions. (Russian) 81g:34065
 Lalli, B. S. Asymptotic behaviour of perturbed systems. 81h:34051
 Martin, D. H. Prediction sensitivity to functional perturbations in modelling with ordinary differential equations. 81c:34039
 Omicchi, Nelson (with Pavlu, Luiz Carlos) Invariance, asymptotic behavior and stability properties for ordinary differential equations. 81m:34066
 Pachpatte, B. G. Integral perturbations in the theory of the stability of nonlinear systems of differential equations. 81c:34040
 Pavlu, Luiz Carlos See Omicchi, Nelson. 81m:34066
 Polockii, V. N. The accumulation of perturbations in linear systems with respect to some coordinates. (Russian. English summary) 81h:34058
 Prohorova, R. A. Linear systems with concentrated perturbations. II. (Russian) 81g:34066

secondary classifications:

- Caljuk, V. Z. Stability with respect to the first approximation of differential inclusions. (Russian) **81b:34008**
- Hameiri, Eliezer Local sufficient condition for magnetohydrodynamic stability of closed line systems. **(81c:76082)**
- Okoh, Frank No system of uncountable rank is purely simple. **(81c:15028)**
- Ospenko, G. S. Perturbation of dynamical systems near invariant manifolds. I. (Russian) **(81h:58054a)**
- Perturbation of dynamical systems near invariant manifolds. II. (Russian) **(81h:58054b)**
- Zankovaja, L. D. The central m -exponent for a system of discrete equations. (Russian) **(81h:39004)**

34D15 Singular perturbations

- Diener, Marc Deux nouveaux "phénomènes-canard". (English summary) **81j:34005**
- Sacker, Robert J. (with Sell, George R.) Singular perturbations and conditional stability. **81j:34006**
- Sell, George R. See Sacker, Robert J., **81j:34006**

secondary classifications:

- Grassman, J. Relaxation oscillations of a van der Pol equation with large critical forcing term. **(81f:70025)**
- Hartwig, Robert E. Theory and applications of matrix perturbations, with respect to Hankel matrices and power formulae. **(81b:15004)**
- Slemrod, M. Stability of steady shearing flows subject to large shearing perturbations in a nonlinear viscoelastic fluid. **(81f:76026)**

34D20 Lyapunov stability

- Aldema, Raül I. Study of the stability of a system with two lines of discontinuity in first-order critical cases. (Russian) **81j:34067**
- Aló, Richard A. (with de Korvin, André; Roberts, Charles E., Jr.) Some stability theorems for autonomous systems of differential equations in critical cases. **81j:34087**
- Andreev, A. S. Asymptotic stability and instability of nonautonomous systems. (Russian) **81k:34036**
- Andrićak, I. A. (with Kossak, O. M.) Determination of the domains of attraction of steady state motions of nonlinear periodic systems. (Russian) **81m:34067**
- Bernfeld, S. R. (with Salvadori, L.) Generalized Hopf bifurcation and h -asymptotic stability. **81k:34037**
- Bogatirov, B. M. On the construction of Lyapunov functions for a class of weakly nonlinear systems of ordinary differential equations. (Russian) **81k:34038**
- Bogdanova, M. Ju. A criterion for the instability of the zero solution of a stationary differential system. (Russian) **81j:34052**
- Boičuk, O. A. See Likova, O. A., **81d:34042**
- Bonnemay, A. Extension des théorèmes linéaires de Lyapunov aux systèmes implicites algèbre-différentiels et application à la prévision des erreurs de simulation. (English summary) **81b:34043**
- Browne, Patrick J. (with Sleeman, B. D.) Stability regions for multiparameter systems of periodic second order ordinary differential equations. **81b:34044**
- Bulgakov, N. G. The structure of a neighborhood of a v -stable rest point of autonomous differential systems. (Russian. English summary) **81j:34088**
- D'Anna, Armando (with Maio, Alfonso; Moauro, Vinicio) Global stability properties by means of limiting equations. **81k:34043**
- Dinovski, V. I. Stability of a linear system of third-order differential equations. (Bulgarian. Russian and English summaries) **81j:34089**
- Sufficient conditions for instability of a nonlinear system. (Bulgarian. Russian and English summaries) **81j:34090**
- Filippov, A. F. A system of differential equations with several discontinuous functions. (Russian) **81d:34041**
- Grišin, S. A. Stability of discontinuous systems. (Russian) **81g:34068**
- Habets, Patrick See Rouché, Nicolas; et al., **81f:34055**
- Hatvani, László Stability and partial stability of nonautonomous systems of differential equations. (Hungarian. English summary) **81b:34059**
- Hazin, L. G. A remark on Lyapunov's paper: "A special case of the problem of stability of motion" [Mat. Sb. 17 (1893), 252-333; Jbuch 25, 1393]. (Russian) **81b:34045**
- Hernández Lerma, Onesimo Lyapunov criteria for stability of differential equations with Markov parameters. **81m:34068**
- Howe, A. Sufficient conditions for the strong stability of linear canonical systems with periodic coefficients. **81b:34060**
- Hu, Lai Sur la détermination pratique de la stabilité de systèmes canoniques à coefficients périodiques à n degrés de liberté. (English summary) **81f:34053**
- Ignat'ev, A. O. (with Savchenko, O. Ja.) On the question of the effect of constantly acting perturbations on nonasymptotically stable motions. (Russian) **81j:34054**
- On the question of stability in a singular case. (Russian) **81m:34069**
- Jakovlev, M. K. On the question of the construction of the Lyapunov function for a linear system of differential equations. (Russian) **81j:34091**
- de Korvin, André See Aló, Richard A.; et al., **81j:34087**
- Kozolapov, V. I. On the stability of motion in the neutral case. (Russian. English summary) **81b:34046**
- Kossak, O. M. See Andrićak, I. A., **81m:34067**
- Krasnoborov, N. A. Stability of a second-order linear equation. (Russian) **81j:34092**
- Krečeto, G. S. Asymptotic properties of solutions of differential systems in a critical sense. (Russian) **81j:34093**
- Kur'mina, L. K. On a question of the solutions of some systems of differential equations with a small parameter multiplying the derivatives. (Russian) **81k:34039**
- Laloy, Michel See Rouché, Nicolas; et al., **81f:34055**
- Likova, O. A. (with Boičuk, O. A.) The small parameter method in the problem of constructing Lyapunov functions for systems of linear nonautonomous differential

equations. (Russian) **81d:34042**See also Valiev, K. G., **81j:34095**(Ljapunov, A. M.) See Hazin, L. G., **81b:34045**Maio, Alfonso See D'Anna, Armando; et al., **81a:34043**Malyiev, Ju. V. On the stability of noncompact sets for nonautonomous systems. (Russian) **81k:34040**Stability of sets for nonautonomous systems. (Russian) **81k:34048**Martinkuk, A. A. Development of the method of Ljapunov functions in the theory of stability of motion of complex systems. (Russian) **81a:34044**

(with Matvičuk, K. S.) Comparison principle for a system of differential

equations with a rapidly rotating phase. (Russian) **81a:34045**Matvičuk, K. S. See Martinkuk, A. A., **81a:34045**Mel'nikov, G. I. Estimates of the stability of motion in an annular domain. (Russian) **81a:34046**Moauro, Vinicio See D'Anna, Armando; et al., **81a:34043**Obolenskii, A. Ju. Stability of the solutions of comparison systems. (Russian. English summary) **81c:34041**Palmer, Kenneth J. Two linear systems criteria for exponential dichotomy. **81m:34070**Petrov, P. P. On the global stability of a certain regulation system. (Russian) **81c:34042**Pustovoi, M. O. Construction of a Ljapunov function by the perturbation method. (Russian) **81h:34061**Roberts, Charles E., Jr. See Aló, Richard A.; et al., **81j:34087**Rouché, Nicolas (with Habets, Patrick; Laloy, Michel) ★ Периодический метод Ляпунова в теории устойчивости. (Russian) [Stability theory by Ljapunov's direct method] **81b:34055**(Rubanovskii, V. N.) See Rouché, Nicolas; et al., **81f:34055**(Rumjancev, V. V.) See Rouché, Nicolas; et al., **81f:34055**Saez, Eduardo (with Tuma, Elias; Szanto, Ivan) On the instability of a nonlinear system. (Spanish. English summary) **81j:34094**Salvadori, L. See Bernfeld, S. R., **81k:34037**Savchenko, O. Ja. See Ignat'ev, A. O., **81f:34054**Selbert, Peter Attractors in general systems. **81h:34041**(Sergeev, V. S.) See Rouché, Nicolas; et al., **81f:34055**(Singh, Madan G.) See Bonnemay, A., **81b:34043**Sitrak, W. A. Instability results for fourth-order differential equations. **81g:34069**Sleeman, B. D. See Browne, Patrick J., **81b:34044**(Stepanov, S. Ja.) See Rouché, Nicolas; et al., **81f:34055**Svečkarova, M. A. Margin of stability for autonomous systems with a finite number of degrees of freedom. (Russian) **81c:34043**Szanto, Ivan See Saez, Eduardo; et al., **81j:34094**Tuma, Elias See Saez, Eduardo; et al., **81j:34094**Unarokov, A. A. Generalized solution of differential equations. Qualitative study of the stability of motion. (Russian) **81a:34047**Valiev, K. G. (with Likova, O. B.) Lyapunov functions and the criterion of exponential dichotomy of reducible systems of linear differential equations. (Russian) **81j:34095**Visentia, F. Limiting processes in the stability problem. **81k:34049**

secondary classifications:

- Abramović, S. M. (with Leonov, G. A.) A type of stability of phase systems. (Russian) **(81h:34062)**
- Akaiyele, Oluola On partial stability of differential equations with time delay. **(81a:34067)**
- Akulenko, L. D. Investigation of individual forced motions of an essentially nonlinear system in the vicinity of a stable single-frequency integral manifold of arbitrary dimension. (Russian) **(81k:34039)**
- Badrinarayan, N. B. (with Kayande, A. A.) Stability of general dynamical system. **(81g:54047)**
- Bernusson, J. (with Burgat, C.) On vector Lyapunov functions and stability of interconnected systems. **(81k:93050)**
- Brayton, Robert K. (with Tong, C. H.) Constructive stability and asymptotic stability of dynamical systems. **(81j:93044)**
- Burgat, C. See Bernusson, J., **(81k:93050)** and Grujić, Ljubomir T., **(81m:93065)**
- Castelan, Walter de Bona A Liapunov functional for a matrix retarded difference-differential equation with several delays. **(81m:34107)**
- D'Anna, Armando (with Maio, Alfonso; Monte, Anna-Maria) Limiting equations in asymptotic stability problems for nonautonomous differential equations. (Italian summary) **(81d:34038)**
- Falla, A. I. Investigation of the stability of weakly autonomous systems by the averaging method. (Russian) **(81c:34036)**
- Filippov, A. F. Study of a system of differential equations with two intersecting lines of discontinuity. (Russian. English summary) **(81j:34034)**
- Goh, B. S. Stability of some multispecies population models. **(81k:92054)**
- Grujić, Ljubomir T. (with Burgat, C.) Lotka-Volterra-like approach to large-scale systems stability. **(81m:93065)**
- Haddock, John R. (with Sacker, Robert J.) Stability and asymptotic integration for certain linear systems of functional differential equations. **(81j:34130)**
- Halanay, Aristotle (with Răsvan, Vladimir) Stabilization of a class of bilinear control systems with applications to steam turbine regulation. **(81h:93073)**
- Husainov, D. Ja. Investigation of the stability of functional-differential equations by A. M. Ljapunov's second method. (Russian) **(81b:34069)**
- Ianilo, N. (with Maffei, C.) Nonautonomous differential systems: several functions in the stability problem. **(81i:34045)**
- Kanevskii, A. Ja. Energy functions for nonautonomous differential equations. (Russian) **(81g:34059)**
- Karev, G. P. (with Treskov, S. A.) The method of Ljapunov functions in stochastic models of the mathematical theory of populations. (Russian) **(81c:92013)**
- Kasymov, E. K. Absolute exponential instability of nonlinear control systems. (Russian) **(81a:93067)**
- Kato, Junji Stability in functional differential equations. **(81m:34109)**
- Kayande, A. A. See Badrinayayan, N. B., **(81g:54047)**

- Khalil, Hassan K.** (with Kokotović, Petar V.) *D*-stability and multiparameter singular perturbation. (81c:34053)
- Kokotović, Petar V.** See **Khalil, Hassan K.**, (81c:34053)
- Leonov, G. A.** See **Abramović, S. M.**, (81c:34062)
- Maffei, C.** See **Iainiro, N.**, (81c:34045)
- Malo, Alfonso** See **D'Anna, Armando**; et al., (81c:34038)
- Markov, S. N.** Sufficient conditions for absence of essentially singular points. (Russian) (81m:34005)
- Monte, Anna-Maria** See **D'Anna, Armando**; et al., (81c:34038)
- Risvan, Vladimir** See **Halamay, Aristide**, (81c:93073)
- Robinson, Clark** (with Young, Lai Sang) Nonabsolutely continuous foliations for an Anosov diffeomorphism. (81m:58061)
- Rubanovskii, V. N.** (with Rumjancev, V. V.) The stability of motion for complex mechanical systems. (Russian. English summary) (81c:70018)
- Rumjancev, V. V.** See **Rubanovskii, V. N.**, (81c:70018)
- Sacker, Robert J.** See **Haddock, John R.**, (81j:34130)
- Šinkla, V. N.** A method of studying the stability of the second generalized method of Ljapunov using numerical computation. (Russian) (81h:65081)
- Tallaferró, Steven D.** Stability for two-dimensional analytic potentials. (81d:70004)
- Tarsova, I. Z.** Stability of the rotation of a heavy solid body of variable mass, having a cavity filled with a fluid, subject to reactive forces in a case of Lagrange type. (Russian) (81h:70002)
- Tong, C. H.** See **Brayton, Robert K.**, (81j:93044)
- Treskov, S. A.** See **Karev, G. P.**, (81c:92013)
- Vjasovik, A. P.** Use of a second-order equation of Ljapunov's type in a problem of control synthesis. (Russian) (81m:93055)
- Young, Lai Sang** See **Robinson, Clark**, (81m:58061)

34D25 Popov-type stability

secondary classifications:

- Kučikov, N. N.** Boundedness of solutions of a certain multidimensional system in the critical case of two zero roots. I. (Russian) (81c:34044a)
- Boundedness of solutions of a certain multidimensional system in the critical case of two zero roots. II. (Russian) (81c:34044b)

34D30 Structural stability and analogous concepts [See also 58Fxx.]

- Bibikov, Ju. N.** Bifurcations of Hopf type for quasiperiodic motions. (Russian) 81m:34071

secondary classifications:

- Bronštejn, I. U.** (with Glavan, V. A.) Structural stability of smooth extensions of dynamical systems. (Russian) (81d:58037)
- Glavan, V. A.** See **Bronštejn, I. U.**, (81d:58037)
- Kolke, Tokihiko** On the nonwandering sets of diffeomorphisms of surfaces. (81m:58060)
- Neumann, Dean A.** Topologically hyperbolic equilibria in dynamical systems. (81j:58070)

34D40 Ultimate boundedness

- Holmes, Philip J.** (with Marsden, Jerrold E.) Dynamical systems and invariant manifolds. 81k:34042
- Kato, Junji** An autonomous system whose solutions are uniformly ultimately bounded but not uniformly bounded. 81m:34072
- Kučikov, N. N.** Boundedness of solutions of a certain multidimensional system in the critical case of two zero roots. I. (Russian) 81c:34044a
- Boundedness of solutions of a certain multidimensional system in the critical case of two zero roots. II. (Russian) 81c:34044b
- Marsden, Jerrold E.** See **Holmes, Philip J.**, 81k:34042

34D99 None of the above, but in this section

- Abramović, S. M.** (with Leonov, G. A.) A type of stability of phase systems. (Russian) 81h:34062
- Kanevskii, A. Ja.** Generalization of some theorems of N. N. Krasovskii. (Russian) 81j:34070
- Karimov, S.** Asymptotic behavior of the solutions of a class of differential equations with a small parameter multiplying the derivative in the case of change of the stability of the focus. (Russian) 81j:34096
- Kozlov, R. I.** Estimates of solutions, and stability of comparison systems. (Russian) 81j:34097
- Leonov, G. A.** See **Abramović, S. M.**, 81h:34062
- Sijmancik, V. E.** Absolute exponential stability of linear differential equations of neutral type in a Banach space. (Russian) 81j:34098
- Wimmer, H. K.** Two linear equations in formal power series. 81j:34099

secondary classifications:

- Alshamali, J. G.** See **Arora, H. L.**, (81c:34001)
- Arora, H. L.** (with Alshamali, J. G.) Stability of differential equation of noninteger order through fixed point in the large. (81c:34001)
- Bialynicki-Birula, Iwo** On the stability of solitons. (81g:81009)
- Cellina, Arrigo** (with Sartori, Caterina) The search for fixed points under perturbations. (81c:58013)
- DeAngelis, D. L.** See **Travis, C. C.**; et al., (81i:92022)
- Dumortier, Freddy** (with Roussarie, Robert) Étude locale des champs de vecteurs de paramètres. (English summary) (81f:58029)
- Ganley, R. F.** Resonance phenomena in nonlinear oscillations of mechanical systems.

(Russian) (81h:70017)

- Gürel, Okan** Necessary and sufficient conditions for cooperative peeling of multiple generating singular points. (81c:58050)
- Hastings, Alan** See **Wolkind, David J.**; et al., (81m:92049)
- Hyver, C.** Stability of transformation systems representable by tree graphs: extension to structures of biological importance. (81h:92017)
- Kisilewicz, Michał** Description of a class of multivalued differential equations with almost weakly stable trivial solution. (81m:34015)
- Logan, Jesse A.** See **Wolkind, David J.**; et al., (81m:92049)
- Post, W. M.** See **Travis, C. C.**; et al., (81i:92022)
- Roussarie, Robert** See **Dumortier, Freddy**, (81f:58029)
- Sartori, Caterina** See **Cellina, Arrigo**, (81c:58013)
- Travis, C. C.** (with Post, W. M.; DeAngelis, D. L.) Infectious disease in a spatially heterogeneous environment. (81i:92022)
- Wolkind, David J.** (with Hastings, Alan; Logan, Jesse A.) Models involving differential and integral equations appropriate for describing a temperature dependent predator-prey mite ecosystem on apples. (81m:92049)

34Exx Asymptotic theory

secondary classifications:

- (Meyer, Richard E.) See **Singular perturbations and asymptotics**, (81m:34001)
- (Mitropol'skii, Ju. A.) See **Asymptotic methods in the theory of nonlinear oscillations**, (81a:34002)
- (Parter, Seymour V.) See **Singular perturbations and asymptotics**, (81m:34001)
- All-Union Conference:**
- Asymptotic Methods in Nonlinear Mechanics** ★Асимптотические методы в теории нелинейных колебаний. (Russian) [Asymptotic methods in the theory of nonlinear oscillations] (81a:34002)
- Asymptotic methods in the theory of nonlinear oscillations** ★Асимптотические методы в теории нелинейных колебаний. (Russian) [Asymptotic methods in the theory of nonlinear oscillations] (81a:34002)
- Asymptotics** ★Singular perturbations and asymptotics. (81m:34001)
- Kacivelli** ★Асимптотические методы в теории нелинейных колебаний. (Russian) [Asymptotic methods in the theory of nonlinear oscillations] (81a:34002)
- Madison, Wis.** ★Singular perturbations and asymptotics. (81m:34001)
- Nonlinear mechanics** ★Асимптотические методы в теории нелинейных колебаний. (Russian) [Asymptotic methods in the theory of nonlinear oscillations] (81a:34002)
- Seminar:**
- Singular Perturbations and Asymptotics** ★Singular perturbations and asymptotics. (81m:34001)
- Singular perturbations and asymptotics** ★Singular perturbations and asymptotics. (81m:34001)

34E05 Asymptotic expansions

- Alymkulov, K. A.** The small parameter method and the justification of Lighthill's method. (Russian) 81d:34043
- Becker, Ronald I.** Asymptotic expansions of second order linear differential equations having conditionally integrable coefficients. 81h:34063a
- Asymptotic expansions of formally selfadjoint differential equations with conditionally integrable coefficients. 81h:34063b
- Burim, V. M.** See **Pavljuk, I. A.**; et al., 81m:34073
- Cohen, Donald S.** See **Rosenblat, S.**, 81c:34050
- Greenlee, W. M.** Perturbation of bound states of the radial equation by repulsive singular potentials—first-order asymptotics. 81f:34056
- Karkinhav, I.** (with Perestjuk, M. O.) Application of the Krylov-Bogoljubov asymptotic method to the study of systems with impulse action. (Ukrainian. English and Russian summaries) 81k:34043
- Kostin, O. V.** (with Stoikova, G. A.) Asymptotic representation of the solutions of an *n*th-order linear differential equation. (Russian) 81g:34071
- Lomov, S. A.** Asymptotic integration in the case of variation of the nature of the spectrum. (Russian) 81c:34045
- Marić, Vojislav** (with Tomić, Miodrag) Asymptotics of solutions of a generalized Thomas-Fermi equation. 81j:34100
- Neščeret, V. I.** Solution of differential equations by the functional parameter method. (Russian) 81j:34101
- Paris, R. B.** On the asymptotic expansions of solutions of an *n*th order linear differential equation. 81d:34044
- Pasenčenko, Ju. A.** See **Pavljuk, I. A.**; et al., 81m:34073
- Pavljuk, I. A.** (with Burim, V. M.; Pasenčenko, Ju. A.) ★Приближенно-аналитические решения неавтономных дифференциальных уравнений. (Russian) [Approximate analytic solutions of nonautonomous differential equations] 81m:34073
- Perestjuk, M. O.** See **Karkinhav, I.**, 81k:34043
- Res, Ivo** Asymptotic properties of solutions of the differential equation $\{A_n^{-1}(t) \dots [A_1^{-1}(t)y'] \dots\}' = A_n(t)y + F(t)$. 81d:34045
- Rosenblat, S.** (with Cohen, Donald S.) Periodically perturbed bifurcation. I. Simple bifurcation. 81i:34050
- Sanders, Jan A.** On the passage through resonance. 81c:34046
- Shivamoggi, Bhimsen K.** Method of matched asymptotic expansions—asymptotic matching principle for higher approximations. 81f:34057
- Sotnickenko, M. A.** Asymptotic solutions of a differential equation in Banach space. (Russian. English summary) 81i:34051
- Stoikova, G. A.** See **Kostin, O. V.**, 81g:34071
- Tomić, Miodrag** See **Marić, Vojislav**, 81j:34100
- Zukova, G. S.** Asymptotic representation of the solution of a differential equation with a large parameter in a Banach space in the case of a finite system of multiple eigenvalues. (Russian) 81k:34044

secondary classifications:

- Arnold, J. M. An asymptotic theory of clad inhomogeneous planar waveguides. I. Eigenfunctions and the eigenvalue equation. (81m:78025a)
An asymptotic theory of clad inhomogeneous planar waveguides. II. Solutions of the eigenvalue equation. (81m:78025b)
- Boujot, Jacqueline (with Pham Ngoc Dinh, Alain; Veyrier, Jean-Pierre) Oscillateurs harmoniques faiblement perturbés: l'algorithme numérique des "pas de géants". (English summary) (81f:65052)
- Gasin, A. A. Asymptotic behavior of the solution of the Cauchy problem for degenerate integro-differential equations. (Russian) (81b:45017)
- Hasanov, A. A. See Vasil'eva, A. B., (81h:34066)
- Jóó, István (with Lazetić, Nebojša) Estimate of the difference of derivatives of partial sums of decompositions corresponding to two arbitrary nonnegative selfadjoint extensions of two operators of Sturm-Liouville type, for an absolutely continuous function. (Russian) (81j:34033)
- Lazetić, Nebojša See Jóó, István, (81j:34033)
- Morgulis, Stephen B. Theoretical analysis of steady nonadiabatic premixed laminar flames. (81e:80013)
- Mellier, T. K. Construction of asymptotic solutions of second-order equations with a small parameter multiplying the derivative. (Russian) (81h:34005)
See also Škif, M. I., (81j:34019)
- Paljutkin, V. G. Distribution of eigenvalues of a boundary value problem for a third-order equation with spectral parameters in the boundary conditions. (Russian) (81h:34018)
- Pham Ngoc Dinh, Alain See Boujot, Jacqueline; et al., (81f:65052)
- Powder, Charles On the asymptotic behavior of a fundamental set of solutions. (81d:34006)
- Škif, M. I. (with Mellier, T. K.) Asymptotic representation of solutions of a system of second-order linear differential equations with a small parameter multiplying the highest derivative. (Russian) (81j:34019)
- Vasil'eva, A. B. (with Hasanov, A. A.) Application of singular perturbation theory to the investigation of mathematical problems of mass transfer in multicomponent systems. (Russian) (81h:34066)
- Veyrier, Jean-Pierre See Boujot, Jacqueline; et al., (81f:65052)
- Yih, Chia Shun Flows with condensation. (81c:76032)

34E10 Perturbations

- Gorelova, E. Ja. (with Strygin, V. V.) An algorithm for the asymptotic expansion of the solutions of the Cauchy problem for singularly perturbed systems. (Russian) 81k:34045
- Strygin, V. V. See Gorelova, E. Ja., 81k:34045

secondary classifications:

- Bhatnagar, K. B. (with Hallan, P. P.) Effect of perturbed potentials on the stability of libration points in the restricted problem. (81d:70010)
- Hallan, P. P. See Bhatnagar, K. B., (81d:70010)
- Hotižev, K. Š. Successive substitutions in perturbation theory. (Russian) (81a:70027)

34E15 Singular perturbations, general theory

- Diekmann, O. (with Hilhorst, D.) How many jumps? Variational characterization of the limit solution of a singular perturbation problem. 81k:34046
- Eckhaus, Wiktor ★Asymptotic analysis of singular perturbations. 81a:34048
- Flaherty, Joseph E. See O'Malley, Robert E., Jr., 81f:34059
- Geel, R. (with de Jager, E. M.) Initial value problems for singularly perturbed nonlinear ordinary differential equations. (81c:34072)
- de Groen, P. P. N. The nature of the "Ackerberg-O'Malley resonance". 81j:34102
- Hilhorst, D. See Diekmann, O., 81k:34046
- de Jager, E. M. See Geel, R., 81c:34072
- Karimov, S. Asymptotic behavior of a class of differential equations with a small parameter multiplying the derivatives in the case of instability of the focus. (Russian) 81f:34058
- Kuraev, N. M. See Vasil'eva, A. B., 81a:34049
- Lomov, S. A. Asymptotic integration of nonlinear singularly perturbed systems and linear equations in Hilbert space. (Russian) 81c:34047
- Mil'čenko, E. F. (with Rozov, N. H.) Some questions of the theory of relaxation oscillations. (Russian) 81h:34064
- Nijima, Koichi On the behavior of multiple solutions of some singular perturbation problem. 81g:34073
- O'Malley, Robert E., Jr. ★Singular perturbation analysis for ordinary differential equations. 81j:34103
(with Flaherty, Joseph E.) Analytical and numerical methods for nonlinear singularly-perturbed initial value problems. 81f:34059
- Ramanujan, N. (with Srivastava, U. N.) Singularly perturbed initial value problems for nonlinear differential systems. (81c:34048)
- Rozov, N. H. See Mil'čenko, E. F., 81h:34064
- Srivastava, U. N. See Ramanujan, N., 81c:34048
- Turbin, A. F. Regular approximations to solutions of singularly perturbed differential equations in Banach spaces. (Russian) 81j:34052
- Vasil'eva, A. B. Singularly perturbed systems in critical cases. (Russian) 81j:34104
(with Kuraev, N. M.) An internal transition layer in a one-sided stable singularly perturbed system. (Russian) 81a:34049
- Wolfe, Robert J. Periodic solutions of a singularly perturbed differential system with applications to the Belousov-Zhabotinskii reaction. 81j:34105

secondary classifications:

- Rugev, B. M. Galerkin's method for an ordinary differential equation with a small parameter. (Russian) (81a:65073)

- Bohl, Erich Inverse monotonicity in the study of continuous and discrete singular perturbation problems. (81a:65074)
- Campbell, Stephen L. ★Singular systems of differential equations. (81g:34003)
- Geel, R. ★Singular perturbations of hyperbolic type. (81c:35003)
- Hosono, Yuzo See Mimura, Masayasu; et al., (81g:34025)
- Howard, Louis N. Nonlinear oscillations. (81d:34029)
- Kurina, G. A. A problem of Mayer, a state equation which is a singularly perturbed linear differential equation that is unsolved with respect to the derivative. (Russian) (81g:49025)
- Mimura, Masayasu (with Tabata, Masahisa; Hosono, Yuzo) Multiple solutions of two-point boundary value problems of Neumann type with a small parameter. (81g:34025)
- Moet, Henry Johan Karel Singular perturbation methods in a one-dimensional free boundary problem. (81c:35004)
- Reinhardt, Hans-Jürgen On asymptotic expansions in nonlinear, singularly perturbed difference equations. (81h:39005)
- Tabata, Masahisa See Mimura, Masayasu; et al., (81g:34025)

34E20 Singular perturbations, turning point theory, WKB-methods

- Dzjadil, V. K. Some special functions and their role in the solution of inhomogeneous differential equations with a turning point. (Russian) 81h:34047
- Hasanov, A. A. See Vasil'eva, A. B., 81h:34066
- Howes, F. A. A necessary condition for twin boundary layer behavior. 81h:34065
Some singularly perturbed superquadratic boundary value problems whose solutions exhibit boundary and shock layer behavior. 81g:34074
- Janson, Z. A. Asymptotic behavior of the solutions of a second-order differential equation with two turning points and a complex parameter. II. (Russian) 81h:34048
- Kedem, Gershon (with Parter, Seymour V.; Steuerwalt, Michael) The solutions of a model nonlinear singular perturbation problem having a continuous locus of singular points. 81m:34074
- Khalil, Hassan K. (with Kokotović, Petar V.) D-stability and multiparameter singular perturbation. 81i:34053
- Kokotović, Petar V. See Khalil, Hassan K., 81i:34053
- Lundqvist, Einar Singular perturbation with a multiple turning point. 81m:34075
- Parter, Seymour V. See Kedem, Gershon; et al., 81m:34074
- Steuerwalt, Michael See Kedem, Gershon; et al., 81m:34074
- Vasil'eva, A. B. (with Hasanov, A. A.) Application of singular perturbation theory to the investigation of mathematical problems of mass transfer in multicomponent systems. (Russian) 81h:34066

secondary classifications:

- Arnold, J. M. (with Felsen, Leopold B.) Rigorous asymptotic theory of evanescent waves for guided propagation. (81d:78030)
- Askar, Atilla See Augustin, Stuart D.; et al., (81d:81010)
- Augustin, Stuart D. (with Demiralp, Metin; Rabitz, Herschel; Askar, Atilla) Action-angle variables for the quantum three-particle system. (81d:81010)
- Balian, R. (with Parisi, G.; Voros, A.) Quartic oscillator. (81b:41003)
- Bender, Carl M. (with Guralnik, Gerald; Silverstein, Martin L.) WKB approximation for quantum theory on a lattice. (81c:81008)
- Crowley, B. J. B. Semiclassical techniques for treating the one-dimensional Schrödinger equation: uniform approximations and oscillatory integrals. (81c:81006)
A semiclassical theory of elastic scattering and direct-reactions: time-independent formulation in three spatial dimensions with complex trajectories. (81c:81045)
- Demiralp, Metin See Augustin, Stuart D.; et al., (81d:81010)
- Felsen, Leopold B. See Arnold, J. M., (81d:78030)
- Fröman, Nanny (with Yngve, Staffan) On the calculation of phase shifts produced by complex potentials. (81h:81108)
- Garfinkel, Boris The regularizing function in resonance problems. (81d:70011)
- Guralnik, Gerald See Bender, Carl M.; et al., (81c:81008)
- Kaushal, R. S. (with Müller-Kirsten, H. J. W.) Explicit normalization of bound-state wave functions and the calculation of decay widths. (81a:81021)
- Meyer, Richard E. Exponential asymptotics. (81c:41070)
- Müller-Kirsten, H. J. W. See Kaushal, R. S., (81a:81021)
- Mur, V. D. (with Popov, V. S.) Quasiclassical approximation for the Dirac equation in strong fields. (81c:81008)
- Nikiforov, A. F. (with Uvarov, V. B.) ★Специальные функции математической физики. (Russian) [Special functions of mathematical physics] (81h:33001)
- Okoshi, Takanori See Oyamada, Kimiyuki, (81h:78027)
- Oyamada, Kimiyuki (with Okoshi, Takanori) High-accuracy WKB analyses of α -power graded-core fibers. (81h:78027)
- Parisi, G. See Balian, R.; et al., (81b:41003)
- Popov, V. S. See Mur, V. D., (81c:81008)
- Rabitz, Herschel See Augustin, Stuart D.; et al., (81d:81010)
- Rosenblyum, G. V. Fundamental solution and spectral asymptotics for systems with turning points. (Russian) (81h:34033)
- de Ruijter, Will Boundary layers in large scale ocean circulation. (81d:86006)
- Silverstein, Martin L. See Bender, Carl M.; et al., (81c:81008)
- Thidé, Bo Phase-integral calculation of physically important quantities for nonrelativistic bound states of the linear central potential. (81k:81020)
- Uvarov, V. B. See Nikiforov, A. F., (81h:33001)
- Voros, A. Symbol calculus by symbolic computation and semiclassical expansions. (81i:81025)
See also Balian, R.; et al., (81b:41003)
- Yngve, Staffan See Fröman, Nanny, (81h:81108)

34E99 None of the above, but in this section

- Bellman, Richard On the Poincaré-Lyapunov theorem. 81h:34067
- Karpa, M. P. Asymptotic behavior of the solution of the Cauchy problem for a third-order linear ordinary differential equation. (Russian) 81f:34060

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- Korolev, V. S. See Kovalevskii, A. N. (81f:49037)
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34F05 Equations and systems with randomness [See also 60H10, 93Exx.]

- Borówko, Piotr An equation $dx/dt = f(x, t)$ whose trivial solution in spite of the strong stability is not mean square stable under persistent random disturbances from G . (Polish and Russian summaries) 81g:34075a
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 Szopa, Janusz Variance of the solution of a stochastic linear differential equation in the case when forcing is a sum of random variables. (Polish, Russian and English summaries) 81g:34076

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 Baffico, Roberto On the convergence of the weak solutions of stochastic differential equations when the noise intensity goes to zero. (Italian summary) (81m:60100)
 Bender, Carl M. (with Cooper, Fred; Guralnik, Gerald; Rose, Harvey A.; Sharp, David H.) Strong coupling expansion for classical statistical dynamics. (81h:82003)
 Boyce, William E. Applications of the Liouville equation. (81m:60101)
 On a conjecture concerning the means of the eigenvalues of random Sturm-Liouville boundary value problems. (81i:34016)
 Cikaló, T.-N. M. Random oscillations in essentially nonlinear nonautonomous stochastic systems. (Russian) (81h:60079)
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 Kalinin, M. I. On the question of the kinetic equation for a linear dynamical system with a parameter that fluctuates according to Poisson's law. (Russian) (81h:82029)
 Mirkina, A. S. Application of the method of multiscale decomposition to solution of equations with nonstationary coefficients. (81g:82006)
 Ozaki, T. Nonlinear time series models for nonlinear random vibrations. (81c:70021)
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 Purkert, Walter (with vom Scheidt, Jürgen) Zur approximativen Lösung des Mittelwertproblems für die Eigenwerte stochastischer Differentialoperatoren. (English and Russian summaries) (81h:60083)
 (with vom Scheidt, Jürgen) Ein Grenzwertsatz für stochastische Eigenwertprobleme. (English and Russian summaries) (81e:60069)
 Rose, Harvey A. See Bender, Carl M.; et al., (81h:82003)
 vom Scheidt, Jürgen See Purkert, Walter, (81e:60069) and Purkert, Walter, (81h:60083)
 Sharp, David H. See Bender, Carl M.; et al., (81h:82003)
 Sun, Tze Chien A finite element method for random differential equations with random coefficients. (81e:65054)
 Sverdan, M. L. (with Jasinskaja, L. I.) Stability of stochastic functional-differential systems. (Russian) (81e:60073)
 Tran Van Nhung Liapunov's exponent of a stochastic process and the stability of the system of linear differential equations with random matrices. (81c:60071)

34Gxx Differential equations in abstract spaces [See also 58D25.]

Walker, John Andrew ★ Dynamical systems and evolution equations. 81f:34061

34G10 Linear equations [See also 47Axx, 47Bxx, 47D05.]

- Aliev, A. B. Behavior of the solutions of the Cauchy problem for a hyperbolic equation. (Russian) 81f:34062
 Aliev, B. A. The Cauchy problem for differential operator equations of hyperbolic type. (Russian, Azerbaijani and English summaries) 81h:34048
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 Berberian, V. A. Eigenfunction expansion of a Schrödinger-type equation in Hilbert space. (Russian) 81b:34049
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 Česalija, V. I. A problem with nonlocal boundary conditions for certain abstract hyperbolic equations. (Russian) 81a:34050
 A nonlocal boundary value problem for a first-order differential equation with a sign-indefinite operator coefficient. (Russian, English summary) 81j:34108
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 Donaldson, J. A. New integral representations for solutions of Cauchy's problem for abstract parabolic equations. (See 81e:00004)
 Egorov, I. E. The Cauchy problem for a second-order degenerate operator equation. (Russian) 81f:34063
 El Boral, Mahmoud M. Some characterization of an abstract differential equation. (Arabic summary) 81h:34069
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 Frosali, Giovanni An evolution problem arising from a stochastic population model with nonlinear birth and death parameters. (Italian summary) 81m:34076
 Goldstein, Jerome A. (with Rosencrans, Steven I.) Energy decay and partition for dissipative wave equations. 81c:34044
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 Hersh, Reuben (with Steinberg, Stanley) Hyperbolic equations with coefficients in an enveloping algebra. 81c:34051
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 Kobayasi, Kazuo On a theorem for linear evolution equations of hyperbolic type. 81a:34051
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 On the discreteness of the spectrum of a boundary value problem. (Russian, Lithuanian and English summaries) 81h:34053
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 Tarasov, R. P. (with Baksev, N. Ju.) An inverse problem. (Russian) 81b:34053
 Travis, C. C. (with Webb, G. F.) Second order differential equations in Banach space. 81j:34110
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- Brown, R. C. Notes on generalized boundary value problems in Banach spaces. I. Adjoint and extension theory. **(81i:47003)**
Chew, K. H. (with Shivakumar, P. N.; Williams, J. J.) Error bounds for the truncation of infinite linear differential systems. **(81a:34012)**
Delfi, Percy Applications of a commutation formula. **(81g:47001)**
Fichtner, Karl-Heinz (with Freudenberg, W.; Kerstan, Johannes) Abhängige Verschiebungen. III. **(81e:60058c)**
Abhängige Verschiebungen von Punktprozessen. I. **(81e:60058a)**
Abhängige Verschiebungen von Punktprozessen. II. **(81e:60058b)**
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34G20 Nonlinear equations [See also 47Hxx.]

- Akinyle, Olusola Restrictive stability of the nonlinear abstract Cauchy problem. (Italian summary) **81h:34071**
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- Bardos, Claude See Cooper, Jeffery. **(See 80d:00017a)**
Bazley, Norman W. Global convergence of Faedo-Galerkin approximations to nonlinear wave equations. **(81h:65059)**
Cârjă, Ovidiu Local controllability of nonlinear evolution equations in Banach spaces. **(81m:47084)**
Cooper, Jeffery (with Bardos, Claude) A nonlinear evolution of Schrödinger type. **(See 80d:00017a)**
Gorbacuk, M. L. (with Gorbacuk, V. I.) The scattering problem for first-order differential equations with operator coefficients. (Russian) **(81i:47015)**
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- Ordnung in normierten Räumen. (English summary) (81d:35006)
- Lomov, S. A. Asymptotic integration of nonlinear singularly perturbed systems and linear equations in Hilbert space. (Russian) (81c:34047)
- Makarov, A. A. The criterion of correct solvability of a boundary value problem in a layer for a system of linear convolution equations in topological spaces. (Russian) (81i:35030)
- Navarro, Carlos B. Brief survey of semigroup theory and its applications to evolution problems. (81c:34052)
- Pavel, Nicolae H. (with Vrabie, Ioan I.) Semilinear evolution equations with multivalued right-hand side in Banach spaces. (81a:47060)
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- Sokolov, V. V. (with Sabat, A. B.) (L, A) -pairs and Riccati type substitution. (Russian) (81k:35152)
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- Eichhorn, Wolfgang Algebraic aspects in the theory of systems of nonlinear differential equations with a view to economics and ecology. 81d:34054
- Totaro, Silvia Approximation of evolution problems in Banach spaces. 81k:34062

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- Mištenko, V. O. Expansion in eigenfunctions of a symmetric abstract elliptic differential operator. (Russian) (81k:47066)
- Naumann, Joachim Periodic solutions to evolution inequalities of a modified Navier-Stokes type. (Italian summary) (81h:47053)
- Parter, Seymour V. On the roles of "stability" and "convergence" in semidiscrete projection methods for initial-value problems. (81a:65110)
- White, R. E. Value set at $x \in \Omega$ for an arbitrary distribution with applications to local extrema of $f \in C(\Omega)$ and a maximum principle for ordinary differential equations. (81d:46049)

34H05 Control problems [See also 49-XX, 93-XX.]

- Duer, Jerald P. Controllability of perturbed nonlinear system. (Italian summary) 81a:34062
- Grasse, Kevin A. (with Zecca, Pietro) Local controllability of multivalued differential equations. 81k:34063
- Hitrov, G. M. On the problem of stabilization in critical cases. (Russian) 81j:34115
- Muhsinov, M. A. Attainable sets of differential inclusions. (Russian. Tajik summary) 81g:34088
- Osmanov, Ju. K. Convergence and error estimate for the method of sequential analysis of variants in variation in a space of equations. (Russian) (See 80d:00021)
- Sabitov, R. A. See Zemljakov, A. S.; et al., 81d:34055
- Somov, E. I. See Zemljakov, A. S.; et al., 81d:34055
- Zecca, Pietro See Grasse, Kevin A., 81k:34063
- Zemljakov, A. S. (with Sabitov, R. A.; Somov, E. I.) Automated synthesis of hierarchical systems of control of motion with an application of Ljapunov vector-valued functions. (Russian) 81d:34055

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- Antonov, I. L. Properties with probability one of trajectories of a linear oscillator that is excited by a steady-state random force. (Russian. English summary) (81g:70027)
- Campbell, Stephen L. ★ Singular systems of differential equations. (81g:34003)
- Chukwu, Ethelbert N. (with Hájek, O.) Disconjugacy and optimal control. (81b:49006)
- Dacka, Czesław On the controllability of a class of nonlinear systems. (81k:93009)
- Haimovici, Adolf A control problem related to a Volterra prey-predator system. (81m:92040)
- Hájek, O. See Chukwu, Ethelbert N., (81b:49006)
- Hermes, Henry On a stabilizing feedback attitude control. (81m:93057)
- Kawakami, Masaaki See Shima, Masasuke; et al., (81a:93029)
- Khalil, Hassan K. (with Kokotović, Petar V.) D-stability and multiparameter singular perturbation. (81k:34053)
- Kloeden, Peter E. General control systems. (81f:49013)
- Kokotović, Petar V. See Khalil, Hassan K., (81k:34053)
- Korobov, V. I. (with Rabah, R.) Exact controllability in a Banach space. (Russian) (81h:93007)
- A general approach to the solution of the problem of synthesizing bounded controls in a control problem. (Russian) (81f:93032)
- Lia, Jin Theory of full compensation of external perturbation for the time-varying parameter linear systems. (Chinese. English summary) (81k:93018)
- Mal'kai, V. I. Two classes of differential equations in functional derivatives. (Russian) (81j:35025)
- Meeker, L. D. Measurement stability of third-order time-optimal control systems. (81m:93061)

- Rabah, R. See Korobov, V. I., (81h:93007)
- Samolenko, L. I. Stabilization of lateral oscillations of an electron-ion ring by an external system with parametric excitation. (Russian) (81h:76071)
- Shima, Masasuke (with Kawakami, Masaaki; Tokumaru, Hidekatsu) Theory of invariance and its applications. I. Invariance for nonlinear systems with controls appearing linearly. (Japanese. English summary) (81a:93029)
- Smith, Russell A. Existence of periodic orbits of autonomous ordinary differential equations. (81c:34034)
- Tiberio Bianchini, Rosa Maria The bang-bang principle for bilinear affine control processes. (Italian. English summary) (81f:93042)
- Tokumaru, Hidekatsu See Shima, Masasuke; et al., (81a:93029)
- Villari, Gabriele Liénard limit cycle and controllability. (Italian. English summary) (81k:34023)
- Wan, Frederic Y. M. The buckling of flexible columns. (81j:73052)
- Zabello, L. E. On the theory of controllability of time dependent systems. (Russian. English summary) (81h:93011)
- Zemljakova, L. S. Control in the small of a system of differential equations. (Russian) (81b:93008)
- Zhao, Su Xia Absolute stability of direct control systems. (Chinese. English summary) (81a:93069)

34Kxx Functional-differential and differential-difference equations, with or without deviating (or retarded) arguments

- (Kurdevanidze, G. D.) See Differential equations with deviating argument, 81m:34084 (Rožkov, V. I.) See Differential equations with deviating argument, 81m:34084
- Differential equations with deviating argument ★ Дифференциальные уравнения с отклоняющимся аргументом. (Russian) [Differential equations with deviating argument] 81m:34084

34K05 General theory

- Angelov, V. G. (with Bainov, D. D.) Existence and uniqueness of the global solution of certain integral-functional equations in a space. (Russian) 81i:34059
- (with Bainov, D. D.) The existence and uniqueness of the positive solution to a functional-differential equation of neutral type. (Russian) 81i:34060
- Bainov, D. D. See Nikolova, T. S., 81a:34064; Angelov, V. G., 81i:34059 and Angelov, V. G., 81i:34060
- Birkgan, S. E. Exponential dichotomy of the solutions of linear differential-difference equations of neutral type with constant coefficients. (Russian) 81d:34056
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- Burns, J. A. See Herdman, T. L., 81m:34087
- Clămpu, Eugen Approximation des solutions des équations différentielles au paratingent à retardement, dans les espaces de Banach. 81j:34116
- Corduneanu, Constantin (with Lakshmikantham, V.) Equations with unbounded delay: a survey. 81i:34061
- Djadjenkov, Ju. A. The dependence of the solutions of an operator equation of Volterra type on the parameter. (Russian) 81m:34085
- Continuous dependence of the solutions of an equation of neutral type on the parameter. (Russian) 81m:34086
- Fečenko, T. S. Asymptotic behavior of solutions of a class of functional-differential equations in the neighborhood of a singular point. (Russian) 81f:34066
- Fodčuk, V. I. (with Holmatov, A.) Polynomial solutions of differential-difference equations of neutral type. (Russian) 81g:34089
- (with Bortel, M. S.) Reducibility of linear functional-differential equations with quasiperiodic coefficients. (Russian) 81e:34046
- Futák, Ján Über die Beschränktheit und die Existenz von Lösungen der Differentialgleichung 4. Ordnung mit nachfolgendem Argument. (Czech and Russian summaries) 81a:34063
- Hale, Jack K. Retarded equations with infinite delays. 81d:34057
- Herdman, T. L. (with Burns, J. A.) Functional differential equations with discontinuous right-hand side. 81m:34087
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- Komlenko, Ju. V. Sufficient conditions for positivity of the Cauchy function and its derivatives for a differential equation with retarded argument. (Russian) 81k:34064
- Lakshmikantham, V. (with Leela, S.; Moauro, Vinicio) Existence theory of delay differential equations in Banach spaces. 81j:34118
- See also Corduneanu, Constantin, 81i:34061
- Leela, S. See Lakshmikantham, V.; et al., 81j:34118
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- Minjuk, S. A. (with Ljahovec, S. N.) Construction of accessibility sets for controllable second-order differential-difference systems. (Russian. English summary) 81j:34119
- Moauro, Vinicio See Lakshmikantham, V.; et al., 81j:34118
- Nikolova, T. S. (with Bainov, D. D.) The periodic solutions of certain differential equations with deviating argument. (Russian) 81a:34064
- Nussbaum, Roger D. Periodic solutions of nonlinear autonomous functional differential equations. 81g:34090
- Ołbrot, Andrzej W. General dynamical systems with heredity. 81m:34089
- Schappacher, W. See Kappel, F., 81j:34117
- Schumacher, Konrad Dynamical systems with memory on history spaces with monotonic seminorms. 81g:34091
- Sficas, Y. G. Strongly monotone solutions of retarded differential equations. 81k:34065
- Skrpniuk, V. P. Behavior of the solutions of systems with a transformed argument with small perturbation. (Russian) 81c:34057
- Stech, Harlan W. On the adjoint theory for autonomous linear functional differential

equations with unbounded delays. **81f:34067**

Terehin, M. T. The existence, uniqueness and continuous dependence of solutions of a system of differential equations with retarded argument. (Russian) **81h:34076**

Turincic, Mihail An asymptotic dosing problem for a system of functional differential equations. **81m:34090**

Voljanjuk, G. D. Invariance of solutions of systems of second-order differential-difference equations of neutral type. (Russian) **81k:34066**

Yeh, Cheh Chih On the existence and uniqueness of solutions of functional-differential equations. **81c:34058**

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Angelov, V. G. (with Bainov, D. D.) Existence and uniqueness of the solution of the generalized initial Cauchy problem for some nonlinear integro-differential equations in a Banach space. (Russian) **(81c:45014)**

Bainov, D. D. See **Angelov, V. G.**, **(81c:45014)**

Berbanti, Luciano Spectral properties of bounded semi-Fredholm operators. (Italian summary) **(81f:47015)**

Jainikajala, L. I. See **Sverdan, M. L.**, **(81c:60073)**

Magomedov, A. R. A theorem on the existence and uniqueness of solutions of linear differential equations with "maxima". (Russian. Azerbaijani and English summaries) **(81j:34010)**

Peera, M. C. Existence and uniqueness of the solution of a class of integral equations with retarded vector argument. (Bulgarian. Russian and English summaries) **(81k:45013)**

Salomon, D. Observers and duality between observation and state feedback for time delay systems. **(81m:93018)**

Sironina, M. I. Mathematical analysis of a class of population dynamics models. (Russian) **(81i:92021)**

Sverdan, M. L. (with Jainikajala, L. I.) Stability of stochastic functional-differential systems. (Russian) **(81c:60073)**

34K10 Boundary value problems

Agarwal, Ravi P. See **Krishnamoorthy, P. R.**, **81m:34092**

Ashkenazi, Max Periodic solutions of a class of functional differential equations. **81c:34047**

Assunta Pozio, M. Behaviour of solutions of some abstract functional differential equations and application to predator-prey dynamics. **81j:34120**

Azbelev, N. V. (with Maksimov, V. P.) A priori estimates of the solutions of the Cauchy problem and the solvability of boundary value problems for equations with retarded argument. (Russian) **81c:34048**

Bainov, D. D. See **Konstantinov, Mihail M.**, **81j:34121**; **Kazakova, N. G.**, **81k:34068**; **Kazakova, N. G.**, **81k:34069**; **Kazakova, N. G.**, **81m:34091**; **Nikolova, T. S.**, **81m:34093** and **Nikolova, T. S.**, **81m:34094**

Borzdjko, V. I. Application of topological methods in the theory of positive periodic solutions of functional-differential equations. (Russian. Tajiki summary) **81c:34049**

Casal, A. (with Freedman, Marvin I.) A Poincaré-Lindstedt approach to bifurcation problems for differential-delay equations. **81k:34067**

Chudja, O. T. Solvability conditions for a de la Vallée Poussin boundary value problem. (Russian) **81b:34059**

Freedman, Marvin I. See **Casal, A.**, **81k:34067**

Gori, Laura Nicolò-Amati (with Sciampicotti, V.) On a boundary value problem for a differential equation with deviating argument. (Italian) **81a:34065**

Hutson, V. C. L. Boundary value problems for differential-difference equations. **81g:34092**

Kamenskii, G. A. (with Myškis, A. D.) Variational and boundary value problems for differential equations with deviating argument. **81b:34060**

Kazakova, N. G. (with Bainov, D. D.) Existence of solutions of a boundary value problem for functional-differential equations of neutral type. Convergence of the successive approximation method. (Russian. Bulgarian and English summaries) **81k:34068**

(with Bainov, D. D.) Convergence of the method of successive approximations for a boundary value problem for functional-differential equations of neutral type. (Russian) **81m:34091**

(with Bainov, D. D.) A boundary value problem for functional-differential equations of neutral type. (Russian) **81k:34069**

Konstantinov, Mihail M. (with Bainov, D. D.) A monotone boundary value problem for differential equations of super-neutral type. (Russian) **81j:34121**

Krishnamoorthy, P. R. (with Agarwal, Ravi P.) Higher order boundary value problems for differential equations with deviating arguments. **81m:34092**

Maksimov, V. P. See **Azbelev, N. V.**, **81c:34048**

Maksudov, F. G. See **Mardanov, I. D.**; et al., **81d:34058**

Mardanov, I. D. (with Samilov, A. H.; Maksudov, F. G.) Some new conditions for solvability of a boundary value problem for nonlinear differential equations with deviating argument of neutral type. (Russian. Azerbaijani and English summaries) **81d:34058**

Myškis, A. D. See **Kamenskii, G. A.**, **81b:34060**

Nikolova, T. S. (with Bainov, D. D.) A boundary value problem for an infinite system of differential equations. (Russian) **81m:34093**

(with Bainov, D. D.) Application of the method of two-sided approximations for finding periodic solutions of differential equations with deviating argument. (Russian) **81m:34094**

Samilov, A. H. Solvability conditions for a boundary value problem. (Russian) **81k:34070**

On the theory of special boundary value problems for second-order differential equations with deviating argument. (Russian. Azerbaijani and English summaries) **81d:34059**

See also **Mardanov, I. D.**; et al., **81d:34058**

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Antonev, S. N. Finite rate of propagation of perturbations in multidimensional problems of two-phase filtration. (Russian) **(81m:76042)**

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Chocholaty, Pavel (with Šlahor, L'udomir) A numerical method to boundary value problems for second order delay differential equations. **(81i:65065)**

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Šlahor, L'udomir See **Chocholaty, Pavel**, **(81i:65065)**

34K15 Qualitative theory

Agarwal, Ravi P. See **Thandapani, E.**, **81c:34059**

Almorsov, R. R. Almost periodic solutions of an equation of neutral type with a small time lag. (Russian) **81c:34059**

(with Kazakova, N. G.) The averaging principle on an unbounded interval for functional-differential equations of neutral type. (Russian. Bulgarian and English summaries) **81k:34071**

Alekseev, A. F. Branching of the periodic solutions of quasilinear difference-differential systems. The nonanalytic case. (Russian) **81c:34060**

Amatova, G. M. The uniqueness of periodic solutions of differential equations with deviating argument. (Russian) **81c:34050**

Ariño, Ovide (with Seguer, P.) Quelques résultats de comportement des solutions d'une classe d'équations différentielles à argument retardé. **81m:34095**

Arohska, M. (with Bainov, D. D.) On periodic solutions of a neutral type equation. (Polish and Russian summaries) **81f:34068**

Ashkenazi, Max (with Chow, Shui Nee) Existence of periodic solutions at resonance for functional differential equations. **81f:34069**

Bainov, D. D. See **Arohska, M.**, **81f:34068** and **Nikolova, T. S.**, **81m:34101**

Bigun, Ja. I. (with Fodčuk, V. I.) Application of the averaging method for studying a class of multifrequency systems with lag. (Russian) **81c:34051**

Borzdjko, V. I. Positive periodic solutions of functional-differential equations. (Russian. Tajiki summary) **81d:34060**

Bykov, Ja. V. (with Matakoev, A. I.; Činkaraev, T. C.) Oscillatory properties of a class of systems of first-order differential equations. (Russian) **81a:34066**

Čanturija, T. A. Some remarks on the oscillatory nature of the solutions of ordinary differential equations with retarded argument. (Russian) **81k:34072**

Chan, W. L. (with Tai, C. H.) Oscillations in a class of nonlinear retarded differential equations. **81d:34061**

Chen, Lu San (with Yeh, Cheh Chih) Comparison theorems and integrability of nonoscillatory solutions of n -th order functional differential equations. (Italian summary) **81b:34077**

(with Yeh, Cheh Chih) Nonoscillatory generating delay terms in functional-differential inequalities. (Italian summary) **81c:34061**

(with Yu, Fong Ming) Sufficient conditions for nonoscillation of forced n -th order retarded functional differential equations. (Italian summary) **81g:34093**

(with Yeh, Cheh Chih) On oscillation of solutions of higher order differential retarded inequalities. **81g:34094**

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Chukwa, Ethelbert N. On the boundedness and the existence of a periodic solution of some nonlinear third order delay differential equation. (Italian summary) **81c:34052**

Činkaraev, T. C. See **Bykov, Ja. V.**; et al., **81a:34066**

Cockburn, Bernardo On the equilibrium points of the equation $x'(t) = F(x(t), x(t - \tau))$. **81c:34053**

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Dankaniš, V. A. See **Mitropol'skii, Ju. O.**; et al., **81j:34124**

Derfel, G. A. Asymptotic behavior of the solutions of a class of functional-differential equations. (Russian) **81c:34062**

Domšlak, Ju. I. A comparison method of Sturm type and its application to the localization of zeros of solutions of differential equations with deviating argument. I. (Russian. Azerbaijani and English summaries) **81j:34123**

Došliak, Ju. I. (with Šeihzamanova, L. A.) Comparison theorem for differential equations and inclusions with deviating argument in Hilbert space and its application. (Russian. Azerbaijani and English summaries) **81m:34096**

Fodčuk, V. I. See **Gočkar, V. V.**, **81c:34063** and **Bigun, Ja. I.**, **81c:34051**

Foster, K. E. (with Grimmer, Ronald) Nonoscillatory solutions of higher order delay equations. **81m:34097**

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Gočkar, V. V. (with Fodčuk, V. I.) Construction of approximate almost periodic solutions of functional-differential equations in the presence of resonance and nonresonance frequencies. (Russian) **81c:34063**

Grimmer, Ronald Existence of periodic solutions of functional-differential equations. **81b:34061**

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Gylys, A. See **Naftalevičius, A.**, **81b:34081**

Hale, Jack K. Variations in delays in difference and differential difference equations. **81g:34095**

Nonlinear oscillations in equations with delays. **81d:34062**

Herdman, T. L. A note on noncontinuable solutions of a delay differential equation. **81b:34078**

Holmatov, A. Periodic and almost periodic solutions of singularly perturbed differential-difference equations of neutral type. (Russian) **81d:34063**

Invernizzi, S. (with Zanolin, F.) Periodic solutions of a differential delay equation of Rayleigh type. **81c:34054**

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Izė, Antonio Fernandes (with dos Reis, J. G.; Freiria, A. A.) Relationship between Lyapunov functionals and nonlinear perturbed neutral functional differential

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(with Ventura, A.) Relationship in the neighbourhood of infinity and asymptotic equivalence of neutral functional differential equations. 81m:34098
- Izjumova, D. V. On the question of the oscillatoriness of the solution of a linear even-order differential equation with a coefficient with changing sign. (Russian) 81b:34062
- Kučenko, S. A. Periodic solutions of the equation $\dot{x}(t) = -\lambda x(t-1)[1+x(t)]$. (Russian) 81c:34073
- Kazakova, N. G. See Ahmerov, R. R., 81c:34071
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- Kolesov, Ju. S. (with Švitra, Donatas) ★Автоколебания в системах с запаздыванием. (Russian) [Self-oscillation in systems with lags] 81f:34071
- Koplatadze, R. G. Bounded solutions of nonlinear second-order differential equations with retarded argument. (Russian) 81b:34063
- Kublykka, E. P. Parametric resonance in systems with aftereffect in the case of almost periodic perturbation. (Russian) 81m:34099
- Kusano, Takasi (with Naito, Manabu) Nonlinear oscillation of fourth order differential equations with deviating argument. 81c:34055
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- Nikolova, T. S. (with Bainov, D. D.) Application of the method of two-sided approximations for finding periodic solutions of differential equations with deviating argument. (Russian) 81m:34101
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- Oğuztöreli, Mehmet Namık (with Leung, K. V.) Analysis and numerical solution of a functional differential equation. 81g:34097
- Ohriska, Ján The argument delay and oscillatory properties of differential equation of n th order. 81j:34126
Sufficient conditions for the oscillation of n th order nonlinear delay differential equation. 81b:34075
- Oláh, Rudolf Note on the oscillation of linear delay differential equations. 81m:34102
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- Philos, Ch. G. Oscillations caused by delays. 81b:34062
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Bounded oscillations generated by retardations for differential equations of arbitrary order. 81m:34103
- Rapp, Piotr On some integral formulation for differential equations with deviated argument. 81j:34128
- dos Reis, J. G. See Izé, Antonio Fernandes; et al., 81f:34070
- Romanenko, O. Ju. (with Šarkovskii, O. M.) Asymptotic behavior of the solutions of linear functional-differential equations. (Russian) 81b:34067
(with Šarkovskii, O. M.) Functional-differential equations that are close to functional equations. (Russian) 81c:34063
- Rybakovskii, Krzysztof P. Ważewski's principle for retarded functional differential equations. 81d:34064
- Šarkovskii, O. M. See Romanenko, O. Ju., 81b:34067 and Romanenko, O. Ju., 81c:34063
- Schmitt, Klaus See Martelli, Mario; et al., 81c:34056
- Seguer, P. See Arino, Ovide, 81m:34095
- Seifert, George Positive invariance of closed sets for generalized Volterra equations. 81b:34068
- Šelžmanova, L. A. See Dušlak, Ju. I., 81m:34096
- Ševelo, V. M. (with Ivanov, A. F.) Asymptotic behavior of a class of first-order differential equations with a deviation of the argument of a mixed type. (Russian) 81b:34083
(with Varch, N. V.) Investigation of oscillatory properties of solutions of first-order differential equations with deviating argument. (Russian) 81g:34098
- Shreve, Warren E. Oscillation in first order matrix differential equations with lag. 81m:34104
- Singh, Bhagat Slowly oscillating and nonoscillating trajectories in second order retarded sublinear equations. 81c:34067
Peculiar oscillations in general functional equations with retardations. 81c:34066
Damped trajectories and slow oscillation in forced Liénard type functional equations. 81m:34105
- Smítalová, Kristína Asymptotic properties of solutions of delayed linear differential equations. (Slovak and Russian summaries) 81b:34084
- Smith, Hal See Martelli, Mario; et al., 81c:34056
- Staikos, Vasilios Anast. Asymptotic behavior and oscillatory nature of bounded solutions of differential equations with deviating arguments. (Russian) 81f:34074
See also Philos, Ch. G., 81c:34058
- Stavroulakis, I. P. Some oscillatory and asymptotic properties of differential equations with deviating arguments. 81b:34085
- Švitra, Donatas See Kolesov, Ju. S., 81f:34071
- Tal, C. H. See Chan, W. L., 81d:34061
- Thandapani, E. (with Agarwal, Ravi P.) Asymptotic behaviour and oscillation of solutions of differential equations with deviating arguments. (Italian summary) 81c:34059
- Tramov, M. I. On zeros of solutions of differential equations with retarded argument. (Russian. English summary) 81c:34076
- Tykhov, V. A. Solvability criteria for the problem of accumulation of perturbations for a linear functional-differential equation. (Russian) 81g:34099
- Varch, N. V. See Ševelo, V. M., 81g:34098
- Ventura, A. See Izé, Antonio Fernandes, 81m:34098
- Werbowski, Jarosław On oscillation behavior of solutions of differential equations generated by delays. 81d:34065
- Wiener, Joseph Generalized-function solutions of linear systems. 81m:34106
- Yeh, Cheh Chih An oscillation criterion for second order nonlinear differential equations with functional arguments. 81b:34064
See also Chen, Lu San, 81c:34061; Chen, Lu San, 81g:34094 and Chen, Lu San, 81h:34077
- Yu, Fong Ming See Chen, Lu San, 81g:34093
- Zanolin, F. See Invernizzi, S., 81c:34054

secondary classifications:

- Bainov, D. D. (with Sarafova, G. H.) An application of the numerical-analytic method of A. M. Samoilenko for investigation of periodic systems of integro-differential equations. (81c:45025)
See also Hristova, S. G., (81c:45017)
- Bajaj, Prem N. Start points in semiflows. (81h:54052)
- De Oliveira, José Carlos F. See Hale, Jack K., (81h:58026)
- Ganapathisubramanian, N. (with Ramaswamy, R.; Kuriacose, J. C.) Limit cycle behaviour in the Belousov-Zhabotinskii oscillatory reaction. (81h:92031)
- Hadeler, K. P. Effective computation of periodic orbits and bifurcation diagrams in delay equations. (81g:65117)
- Hale, Jack K. Retarded equations with infinite delays. (81d:34057)
(with De Oliveira, José Carlos F.) Hopf bifurcation for functional equations. (81h:58026)
- Hristova, S. G. (with Bainov, D. D.) Globally bounded solutions of systems of integro-differential equations of superneutral type. (Russian. Bulgarian and English summaries) (81c:45017)
- Islamov, G. G. (with Šneiberg, I. Ja.) Existence of nonnegative solutions of linear differential equations. (Russian) (81c:34023)
- Kapur, J. N. Nonlinear continuous-time discrete-age-scale-population models. (81m:92042)
- Kuriacose, J. C. See Ganapathisubramanian, N.; et al., (81h:92031)
- Landman, Kerry A. Bifurcation and stability theory of periodic solutions for integro-differential equations. (81d:45017)
- Miluseva, S. D. Application of the averaging method to a class of singularly perturbed integro-differential equations. (Russian. Bulgarian and English summaries) (81c:45024)
- Nussbaum, Roger D. Periodic solutions of nonlinear autonomous functional differential equations. (81g:34090)
- Oliva, W. M. The Levin-Nohel equation on the torus. (81m:58043)
- Peters, Hubert Comportement chaotique d'une équation différentielle retardée. (English summary) (81h:58055)
- Philos, Ch. G. (with Staikos, Vasilios Anast.) Nonslow oscillations with damping. (81m:34045)
- Ramaswamy, R. See Ganapathisubramanian, N.; et al., (81h:92031)
- Samilov, A. H. Solvability conditions for a boundary value problem. (Russian) (81k:34070)
- Sarafova, G. H. See Bainov, D. D., (81c:45025)
- Simpson, Henry C. Stability of periodic solutions of nonlinear integro-differential systems. (81f:45017)
- Šneiberg, I. Ja. See Islamov, G. G., (81c:34023)
- Staikos, Vasilios Anast. See Philos, Ch. G., (81m:34045)
- Stech, Harlan W. Periodic solutions to a nonlinear Volterra integro-differential equation. (81f:45018)
- von Trotha, Hartmut A note on periodic solutions of differential-difference equations with applications to economics. (81h:90049)

34K20 Stability theory

- Akinyele, Oluksola On partial stability of differential equations with time delay. **81a:34067**
- Bainov, D. D. See Hristova, S. G., **81i:34065** and Konstantinov, Mihail M., **81i:34066**
- Burton, T. A. Stability theory for delay equations. **81i:34060**
- Carvalho, Luis Antonio Viera (with Infante, Ettore Ferrari; Walker, John Andrew) On the existence of simple Liapunov functions for linear retarded difference-differential equations. **81g:34100**
- Castelan, Walter de Bona A Liapunov functional for a matrix retarded difference-differential equation with several delays. **81m:34107**
- Chuma, J. (with van den Driessche, P.) A general second-order transcendental equation. **81k:34077**
- Datto, Richard Lyapunov functionals for certain linear delay differential equations in a Hilbert space. **81m:34108**
- De Oliveira, José Carlos F. Hopf bifurcation for functional differential equations. **81a:34068**
- van den Driessche, P. See Chuma, J., **81k:34077**
- Gol'cer, Ja. M. On bifurcations and strong stability of neutral systems with parametric perturbations. (Russian) **81j:34129**
- Haddock, John R. (with Sacker, Robert J.) Stability and asymptotic integration for certain linear systems of functional differential equations. **81j:34130**
- Hirai, Kazumasa (with Satoh, Yoshiaki) Stability of a system with variable time delay. **81f:34075**
- Hristov, Nikolai D. See Konstantinov, Mihail M.; et al., **81a:34069**
- Hristova, S. G. (with Bainov, D. D.) The stability of the solution of a functional-differential equation on a finite interval. (Russian) **81i:34065**
- Hsainov, D. Ja. Investigation of the stability of functional-differential equations by A. M. Ljapunov's second method. (Russian) **81b:34069**
- Infante, Ettore Ferrari See Carvalho, Luis Antonio Viera; et al., **81g:34100**
- Izé, Antonio Fernandes Total and integral stability for neutral functional-differential equations. **81c:34068**
- Kapur, J. N. Delay-differential and integro-differential equations in population dynamics. **81h:34086**
- Kačenko, S. A. (with Kolesov, Ju. S.) Parametric resonance in systems with lag under two-frequency perturbation. (Russian) **81g:34101**
- Kato, Junji Stability in functional differential equations. **81m:34109**
- Kolesov, Ju. S. See Kačenko, S. A., **81g:34101**
- Konstantinov, Mihail M. (with Petkov, Petko Hr.; Patarinski, Simeon P.; Hristov, Nikolai D.) Absolute stability and stabilization of differential delays systems. (Polish and Russian summaries) **81a:34069**
- (with Bainov, D. D.) Absolute exponential stability of nonlinear systems of differential equations with several delays. (Russian) **81i:34066**
- Mikolajski, Z. Remarque sur la méthode de la variation de la constante généralisée. **81k:34078**
- Mollova, K. G. (with Rjabov, Ju. A.) Stability of periodic solutions of second-order equations with small lag in the resonance case. (Russian) **81k:34079**
- Pandolfi, Luciano Exponential stability and Liapunov equation for a class of functional-differential equations. (Italian summary) **81c:34069**
- Patarinski, Simeon P. See Konstantinov, Mihail M.; et al., **81a:34069**
- Petkov, Petko Hr. See Konstantinov, Mihail M.; et al., **81a:34069**
- Rjabov, Ju. A. See Mollova, K. G., **81k:34079**
- Sacker, Robert J. See Haddock, John R., **81j:34130**
- Satoh, Yoshiaki See Hirai, Kazumasa, **81f:34075**
- Silkowski, Richard A star-shaped condition for stability of linear retarded functional-differential equations. **81c:34070**
- Singh, Bhagat Necessary and sufficient condition for eventual decay of oscillations in general functional equations with delays. **81c:34071**
- Walker, John Andrew See Carvalho, Luis Antonio Viera; et al., **81g:34100**

secondary classifications:

- Artstein, Zvi (with Karakostas, George) Convergence in the delay population equation. (81c:92006)
- Birkman, S. E. Exponential dichotomy of the solutions of linear differential-difference equations of neutral type with constant coefficients. (Russian) **(81d:34056)**
- Bradock, R. D. (with van den Driessche, P.) A population model with time delay. (81d:92012)
- Burton, T. A. Limit sets of functional differential equations. **(81m:45014)**
- Cajlik, Z. B. A remark apropos of Ljapunov's method for integro-differential equations. (Russian) **(81c:45023)**
- Chakwa, Ethelbert N. A neutral functional differential equation of Lurie type. **(81a:34071)**
- Datto, Richard Stability properties of linear functional differential equations in a Banach space. **(81m:34111)**
- Dodd, R. K. See Morris, Hedley C., **(81h:92018)**
- van den Driessche, P. See Bradock, R. D., **(81d:92012)**
- Freira, A. A. See Izé, Antonio Fernandes; et al., **(81f:34070)**
- Izé, Antonio Fernandes (with dos Reis, J. G.; Freira, A. A.) Relationship between Lyapunov functionals and nonlinear perturbed neutral functional differential equations. **(81f:34070)**
- Karakostas, George See Artstein, Zvi, **(81c:92006)**
- Kheden, Peter E. Stability of large-scale systems with lagged interconnections. **(81c:93070)**
- Ladde, G. S. Stability of time-delay compartmental systems. **(81j:92011)**
- Morchał, Jarosław A functional differential inequality for linear integro-differential equation with retardation. **(81f:34072)**
- Morris, Hedley C. (with Dodd, R. K.) Pattern formation in a delay equation with diffusion. **(81h:92018)**
- dos Reis, J. G. See Izé, Antonio Fernandes; et al., **(81f:34070)**
- Rybicki, Krzysztof P. Ważewski's principle for retarded functional differential

equations. **(81d:34064)**Simpson, Henry C. Stability of periodic solutions of nonlinear integro-differential systems. **(81f:45017)**Tykier, V. A. Solvability criteria for the problem of accumulation of perturbations for a linear functional-differential equation. (Russian) **(81g:34099)**

34K25 Asymptotic theory

- Kurihara, Mitsunobu Asymptotic expansions in scalar linear functional differential equations. **81h:34067**
- Le Sam Kan Asymptotic expansion of quasiperiodic solutions for a nonlinear nonautonomous system with lag. (Russian) **81h:34088**
- Morgenthal, Klaus Asymptotische Untersuchungen bei Funktionensystemen mit modifizierter Durchdringungseigenschaft. **81j:34131**
- Ved', Ju. A. A criterion for the existence of asymptotic solutions of differential equations with retarded argument. (Russian) **81d:34066**

secondary classifications:

- Casal, A. (with Freedman, Marvin I.) A Poincaré-Lindstedt approach to bifurcation problems for differential-delay equations. **(81k:34067)**
- Freedman, Marvin I. See Casal, A., **(81k:34067)**

34K30 Equations in abstract spaces

- Aliev, R. G. The solvability of an equation with deviating argument in Hilbert space. (Russian) **81d:34067**
- On the existence and stability of solutions to an equation with retarded argument in Hilbert space. (Russian) **81k:34080**
- Ardito, A. (with Ricciardi, P.) Existence and regularity for linear delay partial differential equations. **81f:34076**
- Arino, Ovide (with Khousk, Kacem) Comportement des solutions d'équations différentielles à retard dans un espace ordonné. (English summary) **81g:34102**
- Becker, Ronald I. Periodic solutions of semilinear functional differential equations in a Hilbert space. **81m:34110**
- Bielecki, A. (with Błaż, J.) Über eine Verallgemeinerung der Nicoletti-Aufgabe für Funktional-Differentialgleichungen mit voreilendem Argument. (English summary) **81a:34070**
- Błaż, J. See Bielecki, A., **81a:34070**
- Brewer, Dennis W. The asymptotic stability of a nonlinear functional differential equation of infinite delay. **81k:34081**
- Datto, Richard Stability properties of linear functional differential equations in a Banach space. **81m:34111**
- Khousk, Kacem See Arino, Ovide, **81g:34102**
- Ricciardi, P. See Ardito, A., **81f:34076**
- Rudakov, V. P. The method of induced properties in the theory of implicit differential-operator equations of retarded type. (Russian) **81m:34112**
- Smitalová, Kristina On a problem concerning a functional-differential equation. (Russian summary) **81m:34113**
- Smith, Russell A. Existence of periodic orbits of autonomous retarded functional-differential equations. **81j:34132**

secondary classifications:

- Bainov, D. D. See Konstantinov, Mihail M., **(81i:45022)**
- Brewer, Dennis W. A nonlinear contraction semigroup for a functional differential equation. **(81h:47057)**
- Datto, Richard Lyapunov functionals for certain linear delay differential equations in a Hilbert space. **(81m:34108)**
- Kobayashi, Kusun On some semilinear evolution equations with time-lag. **(81c:35060)**
- Konstantinov, Mihail M. (with Bainov, D. D.) Some functional equations in a Banach space with a deviating vector argument. (Russian) **(81i:45022)**
- Morchał, Jarosław Integral inequalities for Volterra equation in the Banach space with cone. **(81j:45013)**
- Nobel, John A. On some nonlinear Volterra functional differential equations. **(81k:45020)**
- Yamamoto, Yutaka Some remarks on reachability of infinite-dimensional linear systems. **(81j:93029)**
- Zaidman, Samuel D. ★ Abstract differential equations. **(81k:34054)**

34K35 Control problems

- Bulatov, V. I. Spectral reducibility of systems with lag. (Russian) **81j:34133**
- Chakwa, Ethelbert N. On the null-controllability of nonlinear delay systems with restrained controls. **81j:34134**
- A neutral functional differential equation of Lurie type. **81a:34071**

secondary classifications:

- Banks, H. T. Approximation of delay systems with applications to control and identification. **(81c:93027)**
- Gasanov, K. K. (with Mardanov, M. D.; Jusifov, B. M.) On second-order optimality conditions in delay systems. (Russian. Azerbaijani and English summaries) **(81m:49027)**
- Jusifov, B. M. See Gasanov, K. K.; et al., **(81m:49027)**
- Kolodii, A. M. Control with lag of a linear stochastic system. (Russian) **(81m:93069)**
- Mardanov, M. D. See Gasanov, K. K.; et al., **(81m:49027)**
- Mazanov, Alex Acceptor control in model ecosystems. **(81c:92015)**
- Nadifov, M. A. An optimal control problem for a singularly perturbed nonlinear system with lag. (Russian. Azerbaijani and English summaries) **(81j:49012)**
- Tadumadze, T. A. Existence of a solution in optimal problems of neutral type. (Russian. Georgian and English summaries) **(81g:49005)**

34K99 None of the above, but in this section

- Anan'ev, B. I. (with Piskulina, I. Ja.) Minimax quadratic filtering for systems with time lag. (Russian) 81k:34082
 Djedzenko, Ju. A. Local solvability of operator equations. (Russian) 81j:34135
 Kubyshin, E. P. Parametric resonance in linear periodic systems with aftereffect. (Russian) 81j:34136
 Piskulina, I. Ja. See Anan'ev, B. I., 81k:34082

secondary classifications:

- Banks, H. T. (with Kappel, F.) Spline approximations for functional differential equations. (81c:65031)
 Freidlin, M. I. The averaging principle and theorems on large deviations. (Russian) (81k:60059)
 Kappel, F. See Banks, H. T., (81c:65031)

35-XX PARTIAL DIFFERENTIAL EQUATIONS

35-01 Elementary exposition, textbooks

- Diendonné, Jean L'aspect moderne de la théorie des équations linéaires aux dérivées partielles. 81f:35001
 Gustafson, Karl E. ★Introduction to partial differential equations and Hilbert space methods. 81k:35001
 Myint-U, Tyn ★Partial differential equations of mathematical physics. 81a:35001

secondary classifications:

- Behringer, Fred See Heinhold, Josef, (81j:34001)
 Bicadze, A. V. (with Kalinichenko, D. F.) ★A collection of problems on the equations of mathematical physics. (81f:00003)
 Heinhold, Josef (with Behringer, Fred) ★Einführung in die Höhere Mathematik. Teil 3. (German) [Introduction to higher mathematics. Part 3] (81j:34001)
 Kalinichenko, D. F. See Bicadze, A. V., (81f:00003)
 Volosov, V. M. See Bicadze, A. V.; et al., (81f:00003)
 Volosova, I. G. See Bicadze, A. V.; et al., (81f:00003)

35-02 Advanced exposition (research surveys, monographs, etc.)

- Fučík, Svatopluk (with Kufner, Alois) ★Nonlinear differential equations. 81e:35001
 Graffi, Dario ★Nonlinear partial differential equations in physical problems. 81k:35002
 Kufner, Alois See Fučík, Svatopluk, 81e:35001
 Tartar, Luc ★Topics in nonlinear analysis. 81b:35001

secondary classifications:

- Ames, W. F. Nonlinear superposition for operator equations. (81k:34001)
 Ichikawa, Yoshi H. (with Wadati, Miki) Solitons in plasma and other dispersive media. Dawn of nonlinear physics. (81e:35113)
 Wadati, Miki See Ichikawa, Yoshi H., (81e:35113)

35-03 Historical (must also be assigned at least one classification number from Section 01)

- Diendonné, Jean Recent development in the theory of linear partial differential equations. 81i:35001

secondary classifications:

- Cauchy, A. See Demidov, S. S., (81a:01019)
 Demidov, S. S. On the history of the theory of first-order partial differential equations. The works of J. F. Pfaff and A. Cauchy. (Russian) (81a:01019)
 Engelmann, S. B. Lagrange's early contributions to the theory of first-order partial differential equations. (German summary) (81c:31001)
 Gärding, Lars The Dirichlet problem. (81d:31001)
 (Pfaff, J. F.) See Demidov, S. S., (81a:01019)
 Vichnevetsky, Robert Partial differential equations in mathematical modeling. (81m:00017)

35-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

- Silvester, P. P. Software engineering aspects of finite elements. (81m:65180)

35-06 Proceedings, conferences, etc.

- Bardos, Claude See Bifurcation and nonlinear eigenvalue problems, 81c:35001
 Birman, M. S. See Scattering theory. Theory of oscillations, 81a:35003
 Botti, M. See Nonlinear evolution equations and dynamical systems, 81f:35004
 Godunov, S. K. See Partial differential equations, 81m:35002
 Goulaouic, C. See Séminaire: Goulaouic-Schwartz, 81m:35003
 Kalinowski, Anthony J. See Nonlinear partial differential equations in engineering and applied science, 81d:35002
 (Ladyženskaja, O. A.) See Boundary value problems of mathematical physics, 81d:35001 and Boundary value problems of mathematical physics and related questions in the theory of functions, 81f:35002
 (Laury, Jean-Michel) See Bifurcation and nonlinear eigenvalue problems, 81c:35001
 (Lavrent'ev, M. M.) See Inverse problems for differential equations of mathematical

- physics, 81j:35003
 (Martini, Rodolfo) See Geometrical approaches to differential equations, 81i:35002
 (Naval, I. K.) See Boundary value problems for nonstationary equations, 81e:35002
 (Nikol'skii, S. M.) See Boundary value problems of mathematical physics, 81d:35001
 (Papadakis, John S.) See Nonlinear partial differential equations in engineering and applied science, 81d:35002
 (Pempinelli, F.) See Nonlinear evolution equations and dynamical systems, 81f:35004
 (Salahidinov, M. S.) See Differential equations and their applications, 81e:35003
 (Schatzman, Michelle) See Bifurcation and nonlinear eigenvalue problems, 81c:35001
 (Schwartz, Laurent) See Séminaire: Goulaouic-Schwartz, 81m:35003
 (Sobolev, S. L.) See Partial differential equations, 81f:35005 and Theory of cubature formulas and the application of functional analysis to problems of mathematical physics, 81f:35006
 (Soliani, G.) See Nonlinear evolution equations and dynamical systems, 81f:35004
 (Sternberg, Robert L.) See Nonlinear partial differential equations in engineering and applied science, 81d:35002
 (Uspenskii, S. V.) See Partial differential equations, 81a:35002; Partial differential equations, 81f:35005 and Theory of cubature formulas and the application of functional analysis to problems of mathematical physics, 81f:35006
 (Volkov, E. A.) See Boundary value problems of mathematical physics, 81d:35001
 (Vragov, V. N.) See Application of the methods of functional analysis to problems of mathematical physics and numerical analysis, 81j:35001
 Application of the methods of functional analysis to problems of mathematical physics and numerical analysis ★Применение методов функционального анализа к задачам математической физики и вычислительной математики. (Russian) [Application of the methods of functional analysis to problems of mathematical physics and numerical analysis] 81j:35001
 Bifurcation and nonlinear eigenvalue problems ★Bifurcation and nonlinear eigenvalue problems. 81c:35001
 Boundary value problems of mathematical physics ★Крайевые задачи математической физики. 10. (Russian) [Boundary value problems of mathematical physics. 10] 81d:35001
 Boundary value problems of mathematical physics and related questions in the theory of functions ★Крайевые задачи математической физики и смежные вопросы теории функций. 12. (Russian) [Boundary value problems of mathematical physics and related questions in the theory of functions. 12] 81f:35002
 Boundary value problems for nonstationary equations ★Крайевые задачи для нестационарных уравнений. (Russian) [Boundary value problems for nonstationary equations] 81e:35002
 Classical and quantum aspects of completely integrable nonlinear systems ★Classical and quantum aspects of completely integrable nonlinear systems. (Japanese) 81m:35001
 Conference:
 Differential Equations and Numerical Mathematics ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81m:35002
 Nonlinear Partial Differential Equations in Engineering and Applied Science ★Nonlinear partial differential equations in engineering and applied science. 81d:35002
 Partial Differential Equations ★Journées "Équations aux Dérivées Partielles". (French) [Conference on Partial Differential Equations] 81j:35002
 Scheveningen, Differential Equations ★Geometrical approaches to differential equations. 81i:35002
 Cubature formulas ★Теория кубатурных формул и приложения функционального анализа к задачам математической физики. (Russian) [Theory of cubature formulas and the application of functional analysis to problems of mathematical physics] 81f:35006
 Differential equations ★Обратные задачи для дифференциальных уравнений математической физики. (Russian) [Inverse problems for differential equations of mathematical physics] 81j:35003
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 Dynamical systems ★Nonlinear evolution equations and dynamical systems. 81f:35004
 Eigenvalue problems ★Bifurcation and nonlinear eigenvalue problems. 81c:35001
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 Functions ★Крайевые задачи математической физики и смежные вопросы теории функций. 12. (Russian) [Boundary value problems of mathematical physics and related questions in the theory of functions. 12] 81f:35002
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 Kingston, R. I. ★Nonlinear partial differential equations in engineering and applied science. 81d:35002
 Lecce ★Nonlinear evolution equations and dynamical systems. 81f:35004
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 ★Крайевые задачи математической физики и смежные вопросы теории функций. 12. (Russian) [Boundary value problems of mathematical physics and related questions in the theory of functions. 12] 81f:35002
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 Nonlinear Evolution Equations and Dynamical Systems ★Nonlinear evolution

- equations and dynamical systems. 81f:35004
- Nonlinear eigenvalue problems** ★Bifurcation and nonlinear eigenvalue problems. 81c:35001
- Nonlinear evolution equations** ★Studies on some nonlinear evolution equations. 81i:35003
- Nonlinear evolution equations and dynamical systems** ★Nonlinear evolution equations and dynamical systems. 81f:35004
- Nonlinear partial differential equations in engineering and applied science** ★Nonlinear partial differential equations in engineering and applied science. 81d:35002
- Nonlinear systems** ★Classical and quantum aspects of completely integrable nonlinear systems. (Japanese) 81m:35001
- Novosibirsk** ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81m:35002
- Numerical mathematics** ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81m:35002
- Oscillation theory** ★Теория рассеяния. Теория колебаний. (Russian) [Scattering theory. Theory of oscillations] 81a:35003
- Partial differential equations** ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81a:35002
- ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81f:35005
- ★The study of the structure of solutions of partial differential equations. (Japanese) 81m:35004
- ★Journées "Équations aux Dérivées Partielles". (French) [Conference on Partial Differential Equations] 81j:35002
- ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81m:35002
- ★Séminaire Goulaouic-Schwartz, 1979-1980. (French) 81m:35003
- ★Studies in the structure of solutions of partial differential equations. (Japanese) 81m:35005
- Problems in mathematical physics** ★Теория рассеяния. Теория колебаний. (Russian) [Scattering theory. Theory of oscillations] 81a:35003
- Proceedings of the S. L. Sobolev Seminar, No. 1** ★Теория кубатурных формул и приложения функционального анализа к задачам математической физики. (Russian) [Theory of cubature formulas and the application of functional analysis to problems of mathematical physics] 81f:35006
- Proceedings of the S. L. Sobolev Seminar, No. 2** ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81a:35002
- ★Дифференциальные уравнения с частными производными. (Russian) [Partial differential equations] 81f:35005
- Saint Jean de Monts** ★Journées "Équations aux Dérivées Partielles". (French) [Conference on Partial Differential Equations] 81j:35002
- Scattering theory. Theory of oscillations** ★Теория рассеяния. Теория колебаний. (Russian) [Scattering theory. Theory of oscillations] 81a:35003
- Scheveningen** ★Geometrical approaches to differential equations. 81i:35002
- Séminaire:**
- Goulaouic-Schwartz ★Séminaire Goulaouic-Schwartz, 1979-1980. (French) 81m:35003
- Seminar:**
- Equations with Partial Hyperbolic and Holomorphic Derivatives ★Séminaire sur les Équations aux Dérivées Partielles Hyperboliques et Holomorphes, Année 1979-1980. (French) [Seminar on Hyperbolic and Holomorphic Partial Differential Equations] 81k:35003
- Seminar:**
- Bifurcation and Nonlinear Eigenvalue Problems ★Bifurcation and nonlinear eigenvalue problems. 81c:35001
- Studies on some nonlinear evolution equations** ★Studies on some nonlinear evolution equations. 81i:35003
- Studies in the structure of solutions of partial differential equations** ★Studies in the structure of solutions of partial differential equations. (Japanese) 81m:35005
- Study of the structure of solutions of partial differential equations** ★The study of the structure of solutions of partial differential equations. (Japanese) 81m:35004
- Symposium:**
- Classical and Quantum Aspects of Completely Integrable Nonlinear Systems**
- ★Classical and quantum aspects of completely integrable nonlinear systems. (Japanese) 81m:35001
- Studies in the Structure of Solutions of Partial Differential Equations** ★Studies in the structure of solutions of partial differential equations. (Japanese) 81m:35005
- ★The study of the structure of solutions of partial differential equations. (Japanese) 81m:35004
- Theory of cubature formulas and the application of functional analysis to problems of mathematical physics** ★Теория кубатурных формул и приложения функционального анализа к задачам математической физики. (Russian) [Theory of cubature formulas and the application of functional analysis to problems of mathematical physics] 81f:35006
- Villetaneuse** ★Bifurcation and nonlinear eigenvalue problems. 81c:35001
- secondary classifications:
- (Axelsson, Owe) See Analytical and numerical approaches to asymptotic problems in analysis. (81m:65005)
- (Bardos, Claude) See Bifurcation phenomena in mathematical physics and related topics. (81f:00012)
- (Beiss, Daniel) See Bifurcation phenomena in mathematical physics and related topics. (81f:00012)
- (Frank, Léonid S.) See Analytical and numerical approaches to asymptotic problems in analysis. (81m:65005)
- (Jagolnitzer, Daniel) See Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)
- (Kordzadze, R. A.) See Differential and integral equations. Boundary value problems. (81j:73002)

- (van der Sluis, A.) See Analytical and numerical approaches to asymptotic problems in analysis. (81m:65005)
- (Vekua, I. N.) See Differential and integral equations. Boundary value problems. (81j:73002)
- Algebraic analysis** ★Recent development of algebraic analysis. (Japanese) (81m:58001)
- Analytical and numerical approaches to asymptotic problems in analysis** ★Analytical and numerical approaches to asymptotic problems in analysis. (81m:65005)
- Bifurcation phenomena in mathematical physics and related topics** ★Bifurcation phenomena in mathematical physics and related topics. (81f:00012)
- Boundary value problems** ★Дифференциальные и интегральные уравнения. Краевые задачи. (Russian) [Differential and integral equations. Boundary value problems] (81j:73002)
- Calculus** ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)
- Cargèse** ★Bifurcation phenomena in mathematical physics and related topics. (81f:00012)
- Colloquium:**
- Complex Analysis, Microlocal Calculus and Relativistic Quantum Theory ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)
- Complex analysis, microlocal calculus and relativistic quantum theory** ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)
- Conference:**
- Analytical and Numerical Approaches to Asymptotic Problems in Analysis ★Analytical and numerical approaches to asymptotic problems in analysis. (81m:65005)
- Differential and integral equations. Boundary value problems** ★Дифференциальные и интегральные уравнения. Краевые задачи. (Russian) [Differential and integral equations. Boundary value problems] (81j:73002)
- Les Houches** ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)
- Montpellier** ★Problèmes théoriques liés aux nouvelles particules. (French) [Theoretical problems associated with the new particles] (81d:81001)
- NATO Advanced Study Institute:**
- Bifurcation Phenomena in Mathematical Physics and Related Topics ★Bifurcation phenomena in mathematical physics and related topics. (81f:00012)
- Nijmegen** ★Analytical and numerical approaches to asymptotic problems in analysis. (81m:65005)
- Particle physics** ★Problèmes théoriques liés aux nouvelles particules. (French) [Theoretical problems associated with the new particles] (81d:81001)
- Physics** ★Bifurcation phenomena in mathematical physics and related topics. (81f:00012)
- Problèmes théoriques liés aux nouvelles particules** ★Problèmes théoriques liés aux nouvelles particules. (French) [Theoretical problems associated with the new particles] (81d:81001)
- Quantum theory** ★Complex analysis, microlocal calculus and relativistic quantum theory. (81e:81003)
- Recent development of algebraic analysis** ★Recent development of algebraic analysis. (Japanese) (81m:58001)
- Symposium:**
- Recent Development in Algebraic Analysis ★Recent development of algebraic analysis. (Japanese) (81m:58001)

35Axx General theory

35A05 General existence and uniqueness theorems

- Allahac, S.** (with Baouendi, M. S.) Uniqueness for the characteristic Cauchy problem and strong unique continuation for higher order partial differential inequalities. 81e:35003
- Bacconelli, M. S.** See Allahac, S., 81e:35003
- Brandi, Primo** On the Cauchy problem for a nonlinear differential equation with first-order partial derivatives with functional argument. (Italian) 81k:35004
- Cardoso, Fernando** (with Hounie, Jorge) Uniqueness in the Cauchy problem for first-order linear PDEs. 81f:35007
- Hounie, Jorge** See Cardoso, Fernando, 81f:35007
- I'in, E. M.** (with Sivašinikii, S. V.) Differentiable solutions of symmetric systems in plane domains with irregular boundary. (Russian) 81j:35004
- Sivašinikii, S. V.** See I'in, E. M., 81j:35004
- Szép, A.** Cauchy problems for systems of linear singular partial differential equations. 81k:35005
- Wagschal, C.** Le problème de Goursat non-linéaire. 81g:35001
- Zachmanoglou, E. C.** Manifolds with arbitrary submanifolds of nonanalyticity of solutions of linear PDEs. 81f:35008
- Zeman, Marvin** On the uniqueness of the Cauchy problem for partial differential operators with multiple characteristics. 81m:35006
- secondary classifications:
- Arhntik, G. M.** Linear higher-order total differential equations with constant coefficients. (Russian. English summary) (81j:34015)
- Hardin, T.** (with Laville, A.) Une généralisation du théorème de propagation des singularités pour les opérateurs à symbole principal réel. (81j:35113)
- Hörmander, Lars** Propagation of singularities and semiglobal existence theorems for (pseudo)differential operators of principal type. (81j:35110)
- Kukina, S. B.** Nonlinear evolution equations with small initial conditions. (Russian. English summary) (81e:35006)
- Laville, A.** See Hardin, T., (81j:35113)
- Sagrareff, Boris** Normale Auflösbarkeit bei linearen partiellen Differentialoperatoren in lokalen gewichteten Sobolevräumen. (81h:47037)
- Sjöstrand, Johannes** Réflexion des singularités analytiques. (81i:35031)

Watson, N. A. Uniqueness and representation theorems for the inhomogeneous heat equation. (81c:35017)

35A07 Local existence and uniqueness theorems [See also 35H05, 35Sxx.]

Elchner, Johannes Über ein lokales Cauchy-Problem mit mehrfachen Charakteristiken. (81j:35005)

Geller, Daryl Local solvability and homogeneous distributions on the Heisenberg group. (81i:35004)

Kim, Dohan See Kim, Jonguk, 81k:35006

Kim, Jonguk (with Kim, Dohan) Local constancy principle and its application to the partial differential equations. 81k:35006

Lu, Zhu Jia See Mai, Ming Cheng, 81m:35007 and Wang, Guang Yin; et al., 81m:35008

Mai, Ming Cheng (with Lu, Zhu Jia) Uniqueness in Cauchy problems for linear partial differential equations. (Chinese. English summary) 81m:35007

See also Wang, Guang Yin; et al., 81m:35008

Oganesjan, A. O. Local solvability and hypoellipticity for a class of second-order equations. (Russian. Armenian summary) 81j:35006

Okabe, Takayoshi See Ukai, Seiji, 81i:35007

Okaji, Takanishi The local solvability of partial differential operator with multiple characteristics in two independent variables. 81i:35005

Persson, Jan The Cauchy problem at simply characteristic points and P -convexity. 81g:35002

Sannala, N. A. Local nonsolvability of differential equations with weighted derivatives. (Russian) 81i:35006

Ukai, Seiji (with Okabe, Takayoshi) On classical solutions in the large in time of two-dimensional Vlasov's equation. 81i:35007

Wang, Guang Yin (with Mai, Ming Cheng; Lu, Zhu Jia) A remark on uniqueness for partial differential equations of nonprincipal type. (Chinese. English summary) 81m:35008

Zachmanoglou, E. C. Flat solutions and singular solutions of linear partial differential equations with analytic coefficients. 81f:35009

secondary classifications:

Cardoso, Fernando Existence and regularity of solutions of linear PDEs. (81f:35021)

Di Blasio, Gabriella A nonlinear problem which occurs in the kinetic theory of vehicular traffic. (81j:90051)

Dieudonné, Jean Recent development in the theory of linear partial differential equations. (81i:35001)

Heffer, B. Quelques exemples d'opérateurs pseudodifférentiels localement résolubles. (81g:35035)

Rodino, Luigi Nonsolvability of a higher-order degenerate elliptic pseudodifferential equation. (81i:35038)

Yamanaki, A. On a necessary condition for the local solvability of pseudodifferential operators with double characteristics. (81c:35118)

35A08 Fundamental solutions

35A10 Cauchy-Kowalewski theorems

Komatsu, Hikosaburo An analogue of the Cauchy-Kowalevsky theorem for ultradifferentiable functions and a division theorem for ultradistributions as its dual. 81i:35008

Mizohata, S. Sur le théorème de Cauchy-Kowalewski. 81k:35007

secondary classifications:

Bony, Jean-Michel Singularités des solutions des équations aux dérivées partielles non linéaires. (81k:35169)

Elchner, Johannes Über ein lokales Cauchy-Problem mit mehrfachen Charakteristiken. (81j:35005)

35A15 Variational methods

Filippov, V. M. A variational method of solution of boundary value problems of mathematical physics, and function spaces. (Russian) 81c:35004

Hildebrandt, Stefan (with Widman, Kjell-Ove) Variational inequalities for vector-valued functions. 81a:35023

Widman, Kjell-Ove See Hildebrandt, Stefan, 81a:35023

secondary classifications:

Herrera, I. Variational principles for problems with linear constraints: prescribed jumps and continuation type restrictions. (81i:49035)

Kačur, Jozef (with Souček, Jiří) Functions of measures and a variational problem of the type of the nonparametric minimal surface. (Russian summary) (81f:49042)

Papathéodorou, Theodore S. Approximation of solutions to nonlinear variational time dependent problems. (81b:35024)

Schafir, R. L. Bondi's vector, and the Seliger & Whitham variational principle for matter fields. (81d:83030)

Souček, Jiří See Kačur, Jozef, (81f:49042)

35A20 Analytic methods, singularities

Dimitrovski, Dragan (with Georgievska, Slobodanka) Theorems of Eruhin-Peyovitch type for second and third order linear partial differential equations. (Macedonian. French summary) 81m:35009

Georgievska, Slobodanka See Dimitrovski, Dragan, 81m:35009

Kashiwara, Masaki (with Kawai, Takahiro; Sjöstrand, Johannes) On a class of linear

partial differential equations whose formal solutions always converge. 81a:35004

Kawai, Takahiro See Kashiwara, Masaki; et al., 81a:35004

Millar, Robert F. Singularities of solutions to exterior analytic boundary value problems for the Helmholtz equation in three independent variables. II. The axisymmetric boundary. 81m:35010

Nakaoka, Akira Solution analytique et non-analytique pour des équations du premier ordre à symboles principaux dégénérés. 81m:35011

Orlov, Konstantin Application of the approximate analytic prolongment to the boundary problems of the partial differential equations. 81m:35012

Pavlov, A. L. Uniqueness of the solution of the Cauchy problem for equations that are not solved for the highest derivative with respect to time. (Russian) 81a:35005

Sjöstrand, Johannes See Kashiwara, Masaki; et al., 81a:35004

secondary classifications:

Ahmedov, Saidamir Ahmedovik The existence of a homeomorphic solution of a quasilinear Beltrami equation. (Russian) (81m:30035)

Bergler, Peter Über eine partielle Differentialgleichung, die bei der Behandlung gewisser inhomogener Differentialgleichungen von Bedeutung ist. (English summary) (81m:35029)

Bliečev, S. I. (with Dočev, Dočo T.) On the geometry of the asymmetric case of hyperbolic systems of two first-order partial differential equations with two unknown functions and two independent variables. (Russian. Bulgarian and English summaries) (81d:35008)

Invariant foliations of the manifold of integral tangent elements for the asymmetric case of hyperbolic systems of first-order partial differential equations. (Russian. Bulgarian and English summaries) (81d:35009)

(with Dočev, Dočo T.) Conservation laws for the asymmetric case of hyperbolic systems of two first-order partial differential equations. (Russian. Bulgarian and English summaries) (81d:35010)

Dočev, Dočo T. See Bliečev, S. I., (81d:35008) and Bliečev, S. I., (81d:35010)

Gronau, Detlef (with Reich, Ludwig) Meromorphe Lösungen einer Klasse linearer partieller Differentialgleichungen. (81m:35021)

Jouanolou, J. P. ★Équations de Pfaff algébriques. (French) [Algebraic Pfaffian equations] (81k:14008)

Krasil'skii, I. S. See Vinogradov, A. M., (81j:58091)

Kreyszig, Erwin Function-theoretic integral operator methods for partial differential equations. (81i:35023)

Millar, Robert F. The analytic continuation of solutions to elliptic boundary value problems in two independent variables. (81j:35025)

Ōuchi, Sunao Asymptotic behaviour of singular solutions of linear partial differential equations in the complex domain. (81m:35019)

Reich, Ludwig See Gronau, Detlef, (81m:35021)

Tutschke, Wolfgang Vollständige Linearisierung instationärer Prozesse in der Ebene durch komplexe Methoden. (81g:35055)

Vinogradov, A. M. (with Krasil'skii, I. S.) A method of calculating higher symmetries of nonlinear evolutionary equations, and nonlocal symmetries. (Russian) (81j:58091)

35A22 Transform methods

Bardin, B. I. See Suhorol'skii, M. A.; et al., 81i:35009

Boicun, S. A. See Suhorol'skii, M. A.; et al., 81i:35009

Čirkunov, Ju. A. Construction of generalized Poisson formulas by group analysis methods. (Russian) 81i:35005

Mösch, Dietrich Mayersche Transformation bei quasilinearen partiellen komplexen Differentialgleichungen. 81c:35006

Šapovalov, V. N. Symmetry and the separation of variables in a second-order linear differential equation. I. (Russian) 81g:35011a

Suhorol'skii, M. A. (with Bardin, B. I.; Boicun, S. A.) Reduction of a class of differential equations. (Russian) 81i:35009

secondary classifications:

Boyer, Charles P. (with Kalnins, E. G.; Miller, Willard, Jr.) R -separable coordinates for three-dimensional complex Riemannian spaces. (81h:53015)

Burgan, J. R. (with Feix, M. R.; Fijalkow, E.; Munier, A.) Solution of the multidimensional quantum harmonic oscillator with time-dependent frequencies through Fourier, Hermite and Wigner transforms. (81k:81014)

Feix, M. R. See Burgan, J. R.; et al., (81k:81014)

Fijalkow, E. See Burgan, J. R.; et al., (81k:81014)

Gindikin, S. G. See Volevič, L. R., (81i:35097)

Gull Guerrero, F. (with Martínez Alonso, L.) The Jaulet-Miodek transformation is canonical. (81h:35044)

Kahramanov, A. Š. A mixed problem for partial differential equations with constant coefficients in the quarter of space. (Russian. Azerbaijani and English summaries) (81a:35016)

Kalnins, E. G. See Boyer, Charles P.; et al., (81h:53015)

Kostjaner, S. G. Applications of Hankel integral transformations to some problems in the potential theory in gradient media. (81d:44004)

Krendelez, S. F. (with Talyšev, A. A.) Systems of partial differential equations that admit nontrivial tangent transformations. (Russian) (81h:58006)

Martínez Alonso, L. See Gull Guerrero, F., (81h:35044)

Miller, Willard, Jr. See Boyer, Charles P.; et al., (81h:53015)

Munier, A. See Burgan, J. R.; et al., (81k:81014)

Nickel, K. The Crocco transformation for the three-dimensional Prandtl boundary layer equations. (81e:76034)

Talyšev, A. A. See Krendelez, S. F., (81h:58006)

Volevič, L. R. (with Gindikin, S. G.) Solvability of a mixed problem for $(2B+1)$ -hyperbolic equations. (Russian) (81i:35097)

35A25 Other special methods

- Banerjee, R. S. See Roy Chowdhury, A.; et al., 81e:35009
- Bruschi, Massimo (with Levi, D.; Ragnisco, O.) Toda lattice and generalised Wronskian technique. 81e:35007
- Bullough, R. K. See Dodd, R. K., 81e:35010
- Chen, Hsing Hen (with Lee, Y. C.; Liu, C. S.) Integrability of nonlinear Hamiltonian systems by inverse scattering method. 81e:35008
- Dodd, R. K. (with Bullough, R. K.) The generalised Marchenko equation and the canonical structure of the A.K.N.S.-Z.S. inverse method. 81e:35010
- Fučík, V. I. A new method of investigating group properties of equations of mathematical physics. (Russian) 81e:35008
- Lee, Y. C. See Chen, Hsing Hen; et al., 81e:35008
- Levi, D. See Bruschi, Massimo; et al., 81e:35007
- Liu, C. S. See Chen, Hsing Hen; et al., 81e:35008
- Mamontov, A. Application of the method of heat potentials to a nonlinear heat equation. (Russian) 81f:35010
- Oishi, Shin'ichi Relationship between Hirota's method and the inverse spectral method—the Korteweg-de Vries equation's case. 81e:35011
- Ragnisco, O. See Bruschi, Massimo; et al., 81e:35007
- Roy, T. See Roy Chowdhury, A., 81d:35003 and Roy Chowdhury, A.; et al., 81e:35009
- Roy Chowdhury, A. (with Banerjee, R. S.; Roy, T.) A soliton perturbation scheme for 3×3 inverse scattering transform. 81e:35009
- (with Roy, T.) Prolongation structure and inverse scattering formalism for super symmetric sine-Gordon equation in ordinary space time variable. 81d:35003

secondary classifications:

- Alber, S. I. Investigation of equations of Korteweg-de Vries type by the method of recurrence relations. (Russian. English summary) (81b:35004)
- Alvarez-Estrada, R. F. Inverse scattering solution of nonlinear evolution equations in one space dimension: an introduction. (81b:35005)
- Belinskii, V. A. (with Zakharov, V. E.) The integration of Einstein's equations, by the method of inverse scattering, and exact soliton solutions. (See 81j:83017)
- Bullough, R. K. (with Dodd, R. K.) Solitons in physics: basic concepts. (81i:35140a)
- (with Dodd, R. K.) Solitons in mathematics. (81i:35140b)
- See also Sasaki, R., (81h:58006)
- Calogero, F. (with Degasperis, A.) Spectral transform and nonlinear evolution equations. (81h:35042)
- (with Degasperis, A.) Exact solution via the spectral transform of a nonlinear evolution equation with linearly x -dependent coefficients. (81i:35141)
- (with Degasperis, A.) Exact solution via the spectral transform of a generalization with linearly x -dependent coefficients of the modified Korteweg-de Vries equation. (81i:35142)
- Case, K. M. Inverse scattering, orthogonal polynomials, and linear estimation. (81i:42023)
- Caudrey, P. J. The inverse problem for the third order equation $u_{xxx} + q(x)u_x + r(x)u = -i\frac{1}{2}u^2$. (81k:34016)
- Cerrillo, Henri Solutions of the nonlinear 3-wave equations in three spatial dimensions. (81d:35069)
- Degasperis, A. Spectral transform and solvability of nonlinear evolution equations. (81f:35102)
- See also Calogero, F., (81h:35042); Calogero, F., (81i:35141) and Calogero, F., (81i:35142)
- Dodd, R. K. See Bullough, R. K., (81i:35140a) and Bullough, R. K., (81i:35140b)
- Fidly, M. A. See Ross, G.; et al., (81k:78015)
- Fordy, Allan P. (with Gibbons, John) Integrable nonlinear Klein-Gordon equations and Toda lattices. (81i:35153)
- Gibbons, John See Fordy, Allan P., (81i:35153)
- Hirota, Ryogo (with Ramani, Alfred) The Miura transformations of Kaup's equation and of Mikhailov's equation. (81k:35144)
- Ichikawa, Yoshi H. (with Wadati, Miki) Solitons in plasma and other dispersive media. Dawn of nonlinear physics. (81e:35113)
- Kaup, David J. Classical theory of solitons. (French summary) (81f:35104)
- Kekic, Jovan D. On nonlinear superposition. III. (81g:34012)
- Levi, D. (with Ragnisco, O.) Nonlinear differential-difference equations with N -dependent coefficients. I. (81j:35098)
- (with Ragnisco, O.) Nonlinear differential-difference equations with N -dependent coefficients. II. (81k:35156)
- van der Merwe, P. du T. A Bäcklund transformation in physical space-time. (81i:81018)
- Michihito, Y. See Omote, Minoru; et al., (81i:83032)
- Miodke, I. What you always wanted to know about the application of inverse problems to nonlinear equations (or what you would like to do with the I.S.T.). (81h:35045)
- Moezzi, H. See Ross, G.; et al., (81k:78015)
- Muzafarov, V. M. On the well-posedness of the formulation without potential of the inverse scattering problem. (Russian. English summary) (81f:81073)
- Newton, Roger G. Inverse scattering. I. One dimension. (81m:81066a)
- Inverse scattering. II. Three dimensions. (81m:81066b)
- Omote, Minoru (with Michihito, Y.; Wadati, Miki) A Bäcklund transformation of the axially symmetric stationary Einstein-Maxwell equations. (81i:83032)
- Prosser, Reese T. Formal solutions of inverse scattering problems. III. (81m:81058)
- Przeworska-Rolawicz, Danuta ★ Wstęp do analizy algebraicznej i jej zastosowań. (Polish) [Introduction to algebraic analysis and its applications] (81d:44007)
- Ragnisco, O. See Levi, D., (81j:35098) and Levi, D., (81k:35156)
- Ramani, Alfred See Hirota, Ryogo, (81k:35144)
- Remie, R. Role of breather solutions in the statistical mechanics of sine-Gordon chains. (81i:82017)
- Ross, G. (with Fidly, M. A.; Moezzi, H.) The solution to the inverse scattering problem, based on fast zero location from two measurements. (French and German summaries) (81k:78015)
- Roy Chowdhury, A. Inverse scattering equations for $sp^3 + hp^4$ theory in two dimensions. (81i:35150)

- Sasaki, R. (with Bullough, R. K.) Geometry of the AKNS-ZS inverse scattering scheme. (81h:58006)
- Wadati, Miki See Ichikawa, Yoshi H., (81e:35113) and Omote, Minoru; et al., (81i:83032)
- Zakharov, V. E. See Belinskii, V. A., (See 81j:83017)

35A30 Geometric theory, characteristics, transformations

- Anderson, Robert Leonard See Fokas, A. S., 81i:35011
- Berkovik, L. M. On the question of the factorization of linear second-order partial differential equations with two independent variables. (Russian) 81d:35004
- Chan, K. L. (with Chau, W. Y.) Mathematical theory of reduction of physical parameters and similarity analysis. 81i:35010
- Chau, W. Y. See Chan, K. L., 81i:35010
- Fokas, A. S. (with Anderson, Robert Leonard) Group-theoretical nature of Bäcklund transformations. 81i:35011
- Fordy, Allan P. (with Gibbons, John) Some remarkable nonlinear transformations. 81k:35009
- Gibbons, John See Fordy, Allan P., 81k:35009
- Malonek, Helmuth Eine Normalform für reelle partielle Differentialgleichungen höherer Ordnung in der Ebene. 81k:35010
- Morris, Hedley C. Bäcklund transformations and the symmetries of the Yang equations. 81i:35012
- Nakonechni, V. V. The invariance algebra of a system of equations of elliptic type. (Russian. English summary) 81a:35006
- The group-theoretic properties of differential equations with coefficients which generate a Clifford algebra. (Russian. English summary) 81e:35012
- Netesova, T. M. Group classification and invariant solutions of the Korteweg-de Vries equation. (Russian) 81f:35011
- Tasso, H. (with Teichmann, Jiri) On the generalization of the Cole-Hopf transformation. (German summary) 81e:35013
- Teichmann, Jiri See Tasso, H., 81e:35013
- Vereščagina, L. I. Invariant solutions of equations of a three-dimensional nonstationary boundary layer. (Russian. English summary) 81k:35011
- Wick, J. Über eine Verallgemeinerung des Begriffs "Charakteristik" bei partiellen Differentialgleichungen erster Ordnung. (English summary) 81a:35007

secondary classifications:

- (Ackerman, Michael) See Hermann, Robert, (81m:58010)
- Anderson, Robert Leonard (with Barut, Asim Orhan; Rączka, R.) Bäcklund transformations and new solutions of nonlinear wave equations in four-dimensional space-time. (81e:35108)
- Barut, Asim Orhan See Anderson, Robert Leonard; et al., (81e:35108)
- Benguria, R. (with Case, K. M.) Bäcklund transformations for multidimensional sine-Gordon equations. (81h:35041)
- Bhattacharya, O. P. (with Sharma, N. L.) Self-similar solutions of irrotational axially symmetric hypersonic flow equation. (81f:76023)
- Bilve, S. I. Quasilinearity of a system of two first-order partial differential equations. (Russian. Bulgarian and English summaries) (81d:53011)
- Botti, M. (with Pempinelli, F.) Similarity solutions and Bäcklund transformations of the Boussinesq equation. (Italian summary) (81i:35138)
- Bullough, R. K. See Dodd, R. K., (81e:35010)
- Byer, V. O. Some possible state equations of a purely mechanical continuum. (Russian) (81f:76033)
- Case, K. M. Bäcklund transformations in four-dimensional space-time. (81j:35095)
- See also Benguria, R., (81h:35041)
- Chern, Shiang Shen (with Terng, Chuu Lian) An analogue of Bäcklund's theorem in affine geometry. (81h:58004)
- Chinea, F. J. On the intrinsic geometry of certain nonlinear equations: the sine-Gordon equation. (81h:58005)
- Dodd, R. K. (with Bullough, R. K.) The generalised Marchenko equation and the canonical structure of the A.K.N.S.-Z.S. inverse method. (81e:35010)
- Edelen, Dominic G. B. ★ Isosceles methods for equations of balance. (81k:58001)
- Estabrook, Frank B. (with Wahlquist, Hugo) Prolongation structures, connection theory and Bäcklund transformation. (81h:58006)
- Flato, Moshé (with Simon, Jacques) Linearization of relativistic nonlinear wave equations. (81f:81033)
- Garner, K. G. (with Pavlov, V. G.) Continuous groups of transformations in a problem of sensitivity of systems with distributed parameters. (Russian) (81m:93025)
- Giambò, Sebastiano (with Greco, Antonio) The Burgers equation in radiative magnetogasdynamics. (81k:76083)
- Greco, Antonio See Giambò, Sebastiano, (81k:76083)
- Harrison, B. Kent (with Stevens, James L.) Using group theory to solve certain equations arising in general relativity. (81k:83016)
- New large family of vacuum solutions of the equations of general relativity. (81a:83029)
- Hermann, Robert ★ Cartanian geometry, nonlinear waves, and control theory. Part B. (81m:58010)
- Ichikawa, Yoshi H. (with Wadati, Miki) Solitons in plasma and other dispersive media. Dawn of nonlinear physics. (81e:35113)
- Ivrlj, V. Ja. Propagation of singularities of solutions of symmetric hyperbolic systems. (81a:83073)
- Kakic, Kuno Cauchy's characteristics of involutive systems of nonlinear partial differential equations. (81j:58006)
- Kahane, E. G. (with Manocha, H. L.; Miller, Willard, Jr.) The Lie theory of two-variable hypergeometric functions. (81e:33010)
- Katzin, Gerald H. (with Levine, Jack) Symmetries of the Hamilton-Jacobi equation and concomitant constants of motion. (81g:70018)
- Levine, Jack See Katzin, Gerald H., (81g:70018)
- (Lichnerowicz, André) See Pommeret, Jean-François, (81f:58046)

- (Lie, Sophus) See Hermann, Robert, (81m:58010)
- Manocha, H. L. See Kalnins, E. G.; et al., (81c:33010)
- McCarthy, Patrick J. Some linear Bäcklund transformations. (81g:35109)
- Miller, Willard, Jr. See Kalnins, E. G.; et al., (81c:33010)
- Miura, Robert M. Explicit roots of the cubic polynomial and applications. (81f:35109)
- Nakonečnii, V. V. See Nikitin, A. G., (81e:81059)
- Nickel, K. The Crocco transformation for the three-dimensional Prandtl boundary layer equations. (81e:76034)
- Nikitin, A. G. (with Nakonečnii, V. V.) The invariance algebras of Dirac and Schrödinger equations. (Russian. English summary) (81e:81059)
- Orfanidis, Sophocles J. Group-theoretical aspects of the discrete sine-Gordon equation. (81k:81079)
- Otterson, Paul (with Svetlichny, George) On derivative-dependent infinitesimal deformations of differentiable maps. (81f:58054)
- Papamicolaou, N. Gravitational duality and Bäcklund transformations. (81c:83024)
- Pavlov, V. G. See Garayev, K. G., (81m:93025)
- Payne, Dean A. Bäcklund transformations in several variables. (81j:58010)
- Pemprini, F. See Boidi, M., (81f:35138)
- Piran, F. A. E. Geometry of Bäcklund transformations. (81j:58007)
- Pommaret, Jean-François ★Systems of partial differential equations and Lie pseudogroups. (81f:58046)
- Popowicz, Ziemowit Some remarks about the lattice chiral field. (81m:81050)
- Prociup, Gh. Classification of invariant solutions of RMHD with planar symmetry. (Romanian summary) (81f:22013)
- Raczka, R. See Anderson, Robert Leonard; et al., (81e:35108)
- Salihoglu, S. The two-dimensional $O(N)$ nonlinear σ -model and the fifth Painlevé transcendent. (81f:81044)
- Sasaki, Takeshi Hyperbolic affine hyperspheres. (81e:53037)
- Sharma, N. L. See Bhustani, O. P., (81f:76023)
- Simon, Jacques See Flato, Moshe, (81f:81033)
- Spindel, Ph. Some Kasner-type solutions. (81c:83010)
- Steinberg, Stanley Lie theory and differential equations. (81b:58038)
- Stevens, James L. See Harrison, B. Kent, (81k:33016)
- Šurpaja, A. V. The Dirac method and N. N. Bogolubov transformations in the scalar theory. (Russian. Georgian and English summaries) (81k:81061)
- Svetlichny, George See Otterson, Paul, (81f:58054)
- Terng, Chuu Lian See Chera, Shihing Shen, (81h:58004)
- Tu, Gui Zhang The Lie algebra of invariant group of the KdV, MKdV, or Burgers equation. (81e:58051)
- Wadati, Miki See Ichikawa, Yoshi H., (81e:35113)
- Wahlquist, Hugo See Estabrook, Frank B., (81h:58006)
- Wulfman, Carl E. Limit cycles as invariant functions of Lie groups. (81f:35016)

35A35 Theoretical approximation to solutions

- Gajewski, Herbert On the iterative solution of some nonlinear evolution equations. (81f:35002)
- Gol'čev, I. I. Approximation of the solution to some boundary value and mixed problems. (Russian) 81b:35002
- Jerome, Joseph W. Horizontal line analysis of the multidimensional porous medium equation: existence, rate of convergence and maximum principles. 81m:35013
- Tartar, Luc Compensated compactness and applications to partial differential equations. 81m:35014

secondary classifications:

- Ahmedov, Z. A. See Atahodžev, M. A., (81f:31008)
- Atahodžev, M. A. (with Ahmedov, Z. A.) A problem for the biharmonic equation. (Russian) (81f:31008)
- Kaplan, Stanley Formal and convergent power series solutions of singular partial differential equations. (81j:35024)
- Pate, Thomas H. An application of the Neuberger iteration procedure to the constant coefficient linear partial differential equation. (81e:35026)

35A40 Numerical approximation to solutions (For numerical analysis, see 65Mxx, 65Nxx, 65P05.)

secondary classifications:

- Griffiths, D. F. Towards time-stepping algorithms for convective-diffusion. (81d:65065)

35A99 None of the above, but in this section

- Homentcovschi, Dorci On the determination of a vector field with given curl and divergence. (Romanian. English summary) 81k:35012
- Orlov, Konstantin The different solutions of the partial differential equations and the comparing of them. I. 81c:35018
- Takeschi, Jiro On the Cauchy problem for some non-Kowalewskian equations with distinct characteristic roots. 81f:35013

secondary classifications:

- Alizade, M. I. (with Ragimov, M. B.) A method of N. H. Abel for solving functional equations. (Russian) (81a:39007)
- DeTurck, Dennis M. The equation of prescribed Ricci curvature. (81f:35015)
- Egorov, Ju. A. Local properties of pseudodifferential operators with simple real characteristics. (Russian) (See 80f:35002)
- Kočinjan, L. S. See Sarkisjan, S. C., (81d:32004)
- Konopel'čenko, B. G. (with Mohnačev, V. G.) On the group-theoretical analysis of differential equations. (81f:58045)
- Lewy, Hans On conjugate solutions of certain partial differential equations. (81j:35036)

- Logan, J. David (with Pérez, José de Jesús) Similarity solutions for reactive shock hydrodynamics. (81m:76030)
- Matos, Mário C. On infinite-dimensional convolution operators. (81m:58015)
- Mohnačev, V. G. See Konopel'čenko, B. G., (81f:58045)
- Pérez, José de Jesús See Logan, J. David, (81m:76030)
- Ragimov, M. B. See Alizade, M. I., (81a:39007)
- Sarkisjan, S. C. (with Kočinjan, L. S.) A theorem of Picard type. (Russian) (81d:32004)
- Ueno, Kazuhige Reducibility of differential equations and pseudo-isomorphism of automorphism pseudogroups. (81g:58045)

35Bxx Qualitative properties of solutions

35B05 Comparison theorems; oscillation, zeros and growth of solutions

- Bahvalov, N. S. Investigation of differential equations with rapidly oscillating coefficients. (Russian) 81e:35014
- Etgen, Garret J. (with Lewis, Roger T.) The oscillation of elliptic systems. 81g:35003
- Kreith, Kurt A Sturm theorem for partial differential equations of mixed type. 81m:35015
- Lewis, Roger T. See Etgen, Garret J., 81g:35003
- Narita, Mamoru (with Yoshida, Norio) Oscillation of semilinear ultrahyperbolic differential operators. 81f:35012
- Noussair, Ezzat S. (with Swanson, Charles A.) Positive solutions of quasilinear elliptic equations in exterior domains. 81j:35007
- Swanson, Charles A. See Noussair, Ezzat S., 81j:35007
- Wong, Pui Kei Sturmian theory of second-order elliptic differential equations and inequalities. 81d:35005
- Yoshida, Norio See Narita, Mamoru, 81f:35012

secondary classifications:

- Chan, C. Y. (with Young, E. C.) Sturmian theorems for degenerate parabolic inequalities. (81e:35069)
- Collatz, Lothar Monotonicity and free boundary value problems. (81m:65188)
- Fryant, Allan J. Growth and complete sequences of generalized bi-axially symmetric potentials. (81c:31003)
- Galaktionov, V. A. Conditions for Ψ -criticality and methods of comparing solutions of parabolic equations. (Russian. English summary) (81j:35057)
- (with Kudrjumov, S. P.; Mihailov, A. P.; Samarskii, A. A.) The comparison of solutions to parabolic equations. (Russian) (81g:35047)
- (with Kudrjumov, S. P.; Mihailov, A. P.; Samarskii, A. A.) An approach to the comparison of solutions of parabolic equations. (Russian) (81f:35064)
- Hoffmann-Ostenhof, M. (with Hoffmann-Ostenhof, Thomas; Simon, B.) Brownian motion and a consequence of Harnack's inequality: nodes of quantum wave functions. (81g:81019)
- Hoffmann-Ostenhof, Thomas A comparison theorem for differential inequalities with applications in quantum mechanics. (81c:81008)
- See also Hoffmann-Ostenhof, M.; et al., (81g:81019)
- Kudrjumov, S. P. See Galaktionov, V. A.; et al., (81f:35064)
- Kudrjumov, S. P. See Galaktionov, V. A.; et al., (81g:35047)
- Lakshmikantham, V. (with Vaughn, Randy) Parabolic differential inequalities in cones. (81e:35064)
- McCoy, Peter A. Analytical properties of generalized biaxially symmetric potentials. (81c:31009)
- Mihailov, A. P. See Galaktionov, V. A.; et al., (81f:35064) and Galaktionov, V. A.; et al., (81g:35047)
- Mokrik, R. I. (with Pir'ev, Ju. O.) Dynamical properties of the solutions of problems of thermoelasticity. (Russian. English summary) (81f:73057)
- Noussair, Ezzat S. (with Swanson, Charles A.) Oscillation of semilinear elliptic inequalities by Riccati transformations. (81j:35045)
- Pir'ev, Ju. O. See Mokrik, R. I., (81f:73057)
- Samarskii, A. A. See Galaktionov, V. A.; et al., (81f:35064) and Galaktionov, V. A.; et al., (81g:35047)
- Simon, B. See Hoffmann-Ostenhof, M.; et al., (81g:81019)
- Swanson, Charles A. See Noussair, Ezzat S., (81j:35045)
- Vaughn, Randy See Lakshmikantham, V., (81e:35064)
- Young, E. C. See Chan, C. Y., (81e:35069)

35B10 Periodic solutions

- Alymkulov, K. A. See Imanaliev, M. I., 81k:35014
- Brézis, Haim (with Coron, Jean-Michel; Nirenberg, Louis) Free vibrations for a nonlinear wave equation and a theorem of P. Rabinowitz. 81k:35013
- Coron, Jean-Michel See Brézis, Haim; et al., 81k:35013
- Fučík, Svatopluk (with Mawhin, Jean) Generalized periodic solutions of nonlinear telegraph equations. 81f:35014
- Imanaliev, M. I. (with Alymkulov, K. A.) Determination of periodic solutions of nonlinear wave equations. (Russian) 81k:35014
- Kucment, P. A. See Zelenko, L. B., 81a:35008
- Marcellini, Paolo Periodic solutions and homogenization of nonlinear variational problems. 81j:35008
- Mawhin, Jean Periodic solutions of nonlinear dispersive wave equations. 81b:35003
- See also Fučík, Svatopluk, 81f:35014
- Nakao, Mitsuhiro Periodic solution of the dissipative wave equation in a time-dependent domain. 81k:35015
- Nirenberg, Louis See Brézis, Haim; et al., 81k:35013
- Poliščuk, V. N. (with Pitašnik, B. I.) Periodic solutions of a system of partial differential equations with constant coefficients. (Russian) 81e:35015
- Pitašnik, B. I. See Poliščuk, V. N., 81e:35015
- Schnakenberg, J. Simple chemical reaction systems with limit cycle behaviour. 81f:35013

- Šubin, M. A.** Local Favard theory. (Russian. English summary) **81i:35015**
Tenkin, L. A. On the construction of periodic solutions of an equation of parabolic type. (Russian. Estonian and English summaries) **81m:35016**
Zelenko, L. B. (with Kučment, P. A.) The Floquet representation of exponentially growing solutions of elliptic equations with periodic coefficients. (Russian) **81a:35006**

secondary classifications:

- Hall, William S.** (with Štěrý, Milan) The Rayleigh and van der Pol wave equations. Extensions and generalizations. (81j:35020)
Hocquet, Gérard Solutions périodiques d'équations de type hyperbolique. (81g:35004)
Herrmann, Leopold (with Štěrý, Milan) Periodic solutions of weakly nonlinear wave equations in unbounded intervals. (81i:35107)
Iwamiya, Toshiyuki (with Ōharu, Shinnosuke; Takahashi, Tadayasu) On periodic travelling wave solutions to nonlinear dispersive equations. (81b:35091)
Lahturov, S. S. See **Landis, E. M.** (81d:35021)
Landis, E. M. (with Lahturov, S. S.) Behavior at infinity of solutions to elliptic equations that are periodic in all variables but one. (Russian) (81d:35021)
Ōharu, Shinnosuke See **Iwamiya, Toshiyuki**; et al., (81b:35091)
Rabinowitz, Paul H. Free vibrations for a semilinear wave equation. (81i:35109)
Smereka, I. P. Application of special Atab-functions to the construction of the periodic solution of a nonlinear wave equation. (Russian) (81d:35051)
Štěrý, Milan See **Herrmann, Leopold**, (81i:35107) and **Hall, William S.**, (81j:35020)
Takahashi, Tadayasu See **Iwamiya, Toshiyuki**; et al., (81b:35091)

35B15 Almost periodic solutions

- Ishii, Hitoshi** Asymptotic stability of almost periodic solutions of a free boundary problem arising in hydraulics. **81k:35016**
Zaidman, Samuel D. A partial differential equation with almost-periodic right-hand side. (French summary) **81b:35004**

secondary classifications:

- Bortel, M. S.** (with Fodčuk, V. I.) Quasiperiodic solutions of linear partial-functional-differential equations. (Russian) (81a:35093)
Fodčuk, V. I. See **Bortel, M. S.**, (81a:35093)

35B20 Perturbations

- Ablowitz, Mark J.** (with Askar, Atilla; Cakmak, A. S.; Engin, H.) Resonant nonlinear vibrations in continuous systems. I. Undamped case. (French and German summaries) **81j:35009**
 See also **Engin, H.**; et al., **81j:35010**
Askar, Atilla See **Ablowitz, Mark J.**; et al., **81j:35009** and **Engin, H.**; et al., **81j:35010**
Cakmak, A. S. See **Ablowitz, Mark J.**; et al., **81j:35009** and **Engin, H.**; et al., **81j:35010**
Engin, H. (with Ablowitz, Mark J.; Askar, Atilla; Cakmak, A. S.) Resonant nonlinear vibrations of continuous systems. II. Damped and transient behavior. (French and German summaries) **81j:35010**
 See also **Ablowitz, Mark J.**; et al., **81j:35009**

secondary classifications:

- Brilla, J.** The compatible perturbation method in finite viscoelasticity. (81c:73031)
Criminale, William O. Effects of mean current and shear on stability of depth distributions of marine phytoplankton. (81j:92031)
Čučlov, I. D. Stability of regularizations of the many-particle Schrödinger operator with singular repulsive two-body potential. (Russian. English summary) (81f:81016)
Fragola, A. Perturbation of a polyharmonic operator by potentials with small supports. (Russian) (81g:35046)
García Calderón, G. (with Moshinsky, M.) Wigner distribution functions and the representation of canonical transformations in quantum mechanics. (81d:81028)
Hall, Philip Centrifugal instabilities in finite containers: a periodic model. (81k:76028)
Moshinsky, M. See **García Calderón, G.**, (81d:81028)
Vakulenko, S. A. The effect of perturbation on solutions of some nonlinear equations. (Russian. English summary) (81b:35008)

35B25 Singular perturbations

- Alexiades, Vasilios** Singular perturbations for a singular parabolic initial-boundary value problem. **81i:35016**
Bobisud, L. E. (with Christenson, C. O.) A singular singularly perturbed system of nonlinear parabolic equations from chemical kinetics. **81f:35014**
Boutlier, M. The two-variable technique for singular partial differential problems and its justification. **81k:35017**
van der Burgh, A. H. P. On the asymptotic validity of perturbation methods for hyperbolic differential equations. **81b:35005**
Butuzov, V. F. An angular boundary layer in singularly perturbed problems with partial derivatives. (Russian) **81a:35009**
Christenson, C. O. See **Bobisud, L. E.**, **81f:35014**
Coelle, Mario M. Singular perturbations for a formally quasielliptic problem with variable coefficients in a half-space. (Italian. English summary) **81f:35015**
Džavadov, M. G. (with Ejubov, R. A.) A boundary value problem for a partial differential equation containing a small parameter. (Russian) **81a:35010**
Ejubov, R. A. See **Džavadov, M. G.**, **81a:35010**
Geel, R. ★ Singular perturbations of hyperbolic type. **81c:35003**
 (with de Jager, E. M.) Hyperbolic singular perturbations of nonlinear first order differential equations. **81c:35017**
de Jager, E. M. See **Geel, R.**, **81c:35017**
Kozlov, S. M. Averaging of differential operators with almost periodic rapidly oscillating coefficients. (Russian) **81m:35017**

- Lo, Chi Yeung** Expansions in terms of generalized Helmholtz polynomials and associated functions. **81k:35018**
Madame-Tort, Monique Singular perturbations for a class of quasilinear hyperbolic equations. (French summary) **81c:35016**
Max'ja, V. G. (with Nazarov, S. A.; Plamenevskii, B. A.) Asymptotic behavior of the solutions of elliptic boundary value problems in the case of variation of the domain near conic points. (Russian) **81a:35011**
Moet, Henry Johan Karel Singular perturbation methods in a one-dimensional free boundary problem. **81c:35004**
Nazarov, S. A. See **Max'ja, V. G.**; et al., **81a:35011**
Plamenevskii, B. A. See **Max'ja, V. G.**; et al., **81a:35011**
Roos, Hans-Görg Die asymptotische Lösung einer parabolischen Differentialgleichung in der Umgebung eines kritischen Punktes. **81c:35005**
Sababier, M. M. Asymptotic behavior of the solution of a boundary value problem for a one-characteristic third-order differential equation with a small parameter. (Russian. Azerbaijani and English summaries) **81a:35012**
Su, Yu Cheng Asymptotic solution of singular perturbation Cauchy problems for quasilinear second-order hyperbolic partial differential equations. (Chinese. English summary) **81j:35011**
Suharevskii, O. I. Singularly perturbed mixed problems for hyperbolic systems. (Russian) **81b:35006**

secondary classifications:

- Cant, R. J.** Instantons in the $1/N$ expansion-inverse scattering approach in one dimension. (81i:81099)
Cimbal, V. M. Degeneration of a second-order hyperbolic equation into an ordinary one. (Ukrainian. Russian summary) (81k:35033)
Eckhaus, Wiktor ★ Asymptotic analysis of singular perturbations. (81a:34048)
Frank, Léonid S. Coercive singular perturbations. I. A priori estimates. (81b:35025)
Freidlin, M. I. See **Ventcel', A. D.**, (81c:60072)
Gao, Ru Xi See **Jiang, Fu Ru**, (81m:35048)
van Harten, Aart Feedback control of singularly perturbed heating problems. (81d:93026)
Hosono, Yuzo (with Mimura, Masayasu) Singular perturbation to travelling wave solutions of some competitive systems with diffusion. (81m:35071)
Hsiao, George C. (with Weinacht, Richard J.) Singular perturbations for a weakly nonlinear hyperbolic equation. (81j:35076)
Jiang, Fu Ru (with Gao, Ru Xi) Singular perturbations of general boundary value problems for higher-order elliptic equations. (Chinese. English summary) (81m:35048)
Kaljakin, L. A. Construction of the asymptotics of the solutions of a small-parameter magnetohydrodynamic problem. II. Rectangular flow in a canal with a rectangular protuberance. Superconductive wall perpendicular to a magnetic field. (Russian) (81i:35018)
Kifer, Yuri On the principal eigenvalue in a singular perturbation problem with hyperbolic limit points and circles. (81g:35006)
Kuz'mina, L. K. On a question of the solutions of some systems of differential equations with a small parameter multiplying the derivatives. (Russian) (81k:34039)
Mimura, Masayasu See **Hosono, Yuzo**, (81m:35071)
Schuss, Zeev Singular perturbation methods in stochastic differential equations of mathematical physics. (81g:60065)
Ventcel', A. D. (with Freidlin, M. I.) ★ Флуктуации в динамических системах под действием малых случайных возмущений. (Russian) [Fluctuations in dynamical systems subject to small random perturbations] (81c:60072)
Weinacht, Richard J. See **Hsiao, George C.**, (81j:35076)

35B30 Dependence of solutions on initial and boundary data, parameters

- Borodina, A. V.** Differentiability with respect to the parameter of the solutions of nonlinear loaded boundary value problems for second-order partial differential equations. II. **81h:35001**
Kuksin, S. B. Nonlinear evolution equations with small initial conditions. (Russian. English summary) **81c:35006**
Pastuhova, S. E. Averaging of boundary value problems in perforated domains. (Russian) **81c:35017**
Ruderfer, V. I. Zeros of the solutions of a linear analytic partial differential equation of arbitrary order. (Russian) **81b:35007**

secondary classifications:

- Akin, J. E.** See **Whiteman, J. R.**, (81d:65067)
Barnsley, Michael F. (with Bessis, Daniel) Constructive methods based on analytic characterizations and their application to nonlinear elliptic and parabolic differential equations. (81d:41029)
Bessis, Daniel See **Barnsley, Michael F.**, (81d:41029)
Dombrovskii, V. A. (with Kolomietc', V. G.) A study of multifrequency random oscillations in systems with distributed parameters. (Russian) (81h:70019)
Gittinger, W. Catastrophe geometry in physics: a perspective. (81i:58017)
Ivanov, L. A. See **Kiprijanov, I. A.**, (81k:35029)
Kiprijanov, I. A. (with Ivanov, L. A.) The Hadamard method for some classes of hyperbolic equations. (Russian) (81h:35029)
Kolomietc', V. G. See **Dombrovskii, V. A.**, (81h:70019)
Matsumo, Yoshimasa Interaction of the Benjamin-Ono solitons. (81d:35072)
Peral, Juan C. L^p estimates for the wave equation. (81k:35089)
Shaw, Howard On semigroups of weakly anticommuting operators. (81h:47038)
Whiteman, J. R. (with Akin, J. E.) Finite elements, singularities and fracture. (81d:65067)

35B32 Bifurcation

- Achmuty, J. F. G. Bifurcating waves. **81g:35004**
- Bolley, Catherine Multiple solutions of a bifurcation problem. **81j:35012**
- Bunow, Barry See Kernevez, J. P.; et al., **81g:35005**
- Chow, Shui Nue Periodic solutions of nonlinear autonomous hyperbolic equations. **81m:35018**
- Franceschini, Valter (with Tebaldi, Claudio) Sequences of infinite bifurcations and turbulence in a five-mode truncation of the Navier-Stokes equations. **81e:35018**
- Golubitsky, Martin See Shaeffer, David G., **81k:35019**
- Joly, G. See Kernevez, J. P.; et al., **81g:35005**
- Kernevez, J. P. (with Joly, G.; Thomas, Daniel; Bunow, Barry) Pattern formation and wave propagation in the s - a system. **81g:35005**
- Schaeffer, David G. Qualitative analysis of a model for boundary effects in the Taylor problem. **81e:35007**
- Shaeffer, David G. (with Golubitsky, Martin) Boundary conditions and mode jumping in the buckling of a rectangular plate. **81k:35019**
- Sijthard, J. Bifurcation analysis of a nonlinear free boundary problem from plasma physics. **81c:35006**
- Tebaldi, Claudio See Franceschini, Valter, **81e:35018**
- Thomas, Daniel See Kernevez, J. P.; et al., **81g:35005**
- Wulfman, Carl E. Limit cycles as invariant functions of Lie groups. **81f:35016**
- secondary classifications:
- Bajaj, A. K. (with Sethna, P. R.; Lundgren, T. S.) Hopf bifurcation phenomena in tubes carrying a fluid. **(81j:76040)**
- (Bardos, Claude) See Bifurcation and nonlinear eigenvalue problems, **(81c:35001)**
- Barnesley, Michael F. (with Bessis, Daniel) Constructive methods based on analytic characterizations and their application to nonlinear elliptic and parabolic differential equations. **(81d:41029)**
- Beirão da Veiga, Hugo Differentiability for Green's operators of variational inequalities and applications to the determination of bifurcation points. **(81b:58011)**
- Bessis, Daniel See Barnesley, Michael F., **(81d:41029)**
- Billing, Gert Due See Humding, Axel, **(81e:92007)**
- Bolley, Catherine Solutions numériques de problèmes de bifurcation. (English summary) **(81k:65136)**
- Cowan, J. D. See Ermentrout, G. B., **(81m:92018)**
- Cross, M. C. Derivation of the amplitude equation at the Rayleigh-Bénard instability. **(81j:76033)**
- Ermentrout, G. B. (with Cowan, J. D.) Large scale spatially organized activity in neural nets. **(81m:92018)**
- Erneux, T. See Herschkowitz-Kaufman, M., **(81c:92018)**
- Haken, H. Synergetics and bifurcation theory. **(81j:58061)**
- Synergetics and a new approach to bifurcation theory. **(81h:58046)**
- Houghton, D. M. (with Ogden, R. W.) Bifurcation of inflated circular cylinders of elastic material under axial loading. I. Membrane theory for thin-walled tubes. **(81b:73007a)**
- (with Ogden, R. W.) Bifurcation of inflated circular cylinders of elastic material under axial loading. II. Exact theory for thick-walled tubes. **(81b:73007b)**
- (with Ogden, R. W.) Bifurcation of rotating thick-walled elastic tubes. **(81j:73050)**
- Herschkowitz-Kaufman, M. (with Erneux, T.) The bifurcation diagram of model chemical reactions. **(81c:92018)**
- Heyvaerts, Jean (with Lasry, Jean-Michel; Schatzman, Michelle; Witomski, P.) Solar flares: a nonlinear eigenvalue problem in an unbounded domain. **(81f:85001)**
- Holmes, Philip J. (with Marsden, Jerrold E.) Bifurcations of dynamical systems and nonlinear oscillations in engineering systems. **(81j:58062)**
- Humding, Axel (with Billing, Gert Due) Secondary bifurcations in spherical reaction-diffusion systems. **(81e:92007)**
- Jackiw, R. (with Rossi, Paolo) Stability and bifurcation in Yang-Mills theory. **(81a:81054)**
- Jensen, K. F. See Ray, W. Harmon, **(81m:80015)**
- Kirchgässner, K. Exotische Lösungen des Bénardschen Problems. (English summary) **(81d:76048)**
- Knightly, George H. (with Sather, D.) Buckled states of a spherical shell under uniform external pressure. **(81f:73021)**
- Langenbach, Arno Bifurcation under nonlinear loading. **(81f:49008)**
- Lasry, Jean-Michel See Heyvaerts, Jean; et al., **(81f:85001)** and Bifurcation and nonlinear eigenvalue problems, **(81c:35001)**
- Lundgren, T. S. See Bajaj, A. K.; et al., **(81j:76040)**
- Marsden, Jerrold E. See Holmes, Philip J., **(81j:58062)**
- Matkowsky, Bernard J. (with Putnick, Leonard J.; Reiss, Edward L.) Secondary states of rectangular plates. **(81a:73026)**
- Mignot, Fulbert (with Murat, François; Puel, Jean-Pierre) Variation d'un point de retournement par rapport au domaine. (English summary) **(81m:35060)**
- Mimura, Masayasu (with Nishiura, Yasumasa; Yamaguti, Masaya) Some diffusive prey and predator systems and their bifurcation problems. **(81a:35050)**
- Murat, François See Mignot, Fulbert; et al., **(81m:35060)**
- Nishiura, Yasumasa See Mimura, Masayasu; et al., **(81a:35050)**
- Ogden, R. W. See Houghton, D. M., **(81b:73007a)**; Houghton, D. M., **(81b:73007b)** and Houghton, D. M., **(81j:73050)**
- (Olver, Peter J.) See Sattinger, David H., **(81e:58022)**
- Padula, Mariarosaria See Russo, Remigio, **(81c:76003)**
- Puel, Jean-Pierre See Mignot, Fulbert; et al., **(81m:35060)**
- Putnick, Leonard J. See Matkowsky, Bernard J.; et al., **(81a:73026)**
- Ray, W. Harmon (with Jensen, K. F.) Bifurcation phenomena in stirred tanks and catalytic reactors. **(81m:80015)**
- Reiss, Edward L. See Matkowsky, Bernard J.; et al., **(81a:73026)**
- Rossi, Paolo See Jackiw, R., **(81a:81054)**
- Russo, Remigio (with Padula, Mariarosaria) A note on the bifurcation of micropolar

- fluid motions. (Italian summary) **(81e:76003)**
- Sather, D. See Knightly, George H., **(81f:73021)**
- Sattinger, David H. ★Group-theoretic methods in bifurcation theory. **(81e:58022)**
- Selection mechanisms in symmetry breaking phenomena. **(81c:58030)**
- Schatzman, Michelle See Heyvaerts, Jean; et al., **(81f:85001)** and Bifurcation and nonlinear eigenvalue problems, **(81c:35001)**
- Serre, D. Triplets de solutions d'une équation aux dérivées partielles elliptique non linéaire. (English summary) **(81i:35067)**
- Sethna, P. R. See Bajaj, A. K.; et al., **(81j:76040)**
- Trad, Ahmed Ondes thermo-acoustiques visqueuses et ondes entropiques dans un tube poreux. (English summary) **(81m:76033)**
- Voss, Heinrich (with Werner, Bodo) Ein Quotienteneinschließungssatz für den kritischen Parameter nichtlinearer Randwertaufgaben. **(81i:65085)**
- Webb, G. F. A bifurcation problem for a nonlinear hyperbolic partial differential equation. **(81c:35006)**
- Werner, Bodo See Voss, Heinrich, **(81i:65085)**
- Witomski, P. See Heyvaerts, Jean; et al., **(81f:85001)**
- Yamaguti, Masaya See Mimura, Masayasu; et al., **(81a:35050)**
- Bifurcation and nonlinear eigenvalue problems ★Bifurcation and nonlinear eigenvalue problems. **(81c:35001)**
- Eigenvalue problems ★Bifurcation and nonlinear eigenvalue problems. **(81c:35001)**
- Nonlinear eigenvalue problems ★Bifurcation and nonlinear eigenvalue problems. **(81c:35001)**

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- Villetaneuse ★Bifurcation and nonlinear eigenvalue problems. **(81c:35001)**

35B35 Stability, boundedness

- Belonosov, V. S. (with Zelenjak, T. I.) Ljapunov stability of the solution of mixed problems for nonlinear parabolic equations. (Russian) (See **80f:35002**)
- Bořil'akov, N. E. (with Potapenko, P. P.) The Ljapunov theorem for systems of equations in total differentials. (Russian) **81k:35020**
- Böttger, Hans-Bernd Global existence and asymptotic behaviour of solutions of hyperbolic systems of partial differential equations. (Russian summary) **81e:35019**
- Filatov, V. V. The stability of the Cauchy problem for certain types of differential equations. (Russian) **81j:35014**
- Magina, Kenjiro Stability of travelling wave solutions of the active Josephson junction transmission line. **81j:35015**
- Potapenko, P. P. See Bořil'akov, N. E., **81k:35020**
- Zelenjak, T. I. See Belonosov, V. S., (See **80f:35002**)
- secondary classifications:
- Adler, J. (with Barry, P. A.; Bernal, M. J. M.) Thermal explosion theory for a slab with time-periodic surface temperature variation. **(81d:80009)**
- Barry, P. A. See Adler, J.; et al., **(81d:80009)**
- Bernal, M. J. M. See Adler, J.; et al., **(81d:80009)**
- Berryman, James G. (with Holland, Charles J.) Stability of the separable solution for fast diffusion. **(81m:35065)**
- Cope, Davis Stability of limit cycle solutions of reaction-diffusion equations. **(81k:80004)**
- Gardner, Robert A. Global stability of stationary solutions of reaction-diffusion systems. **(81j:35060)**
- Han, S. J. Stability of envelope waves. **(81c:35108)**
- Holland, Charles J. See Berryman, James G., **(81m:35065)**
- Hsu, Yu.-C. Study of effective potentials among solitons in the sine-Gordon system. **(81i:81072)**
- Joseph, Daniel D. Direct and repeated bifurcation into turbulence. **(81e:76042)**
- Kidachi, Hideyuki On mode interactions in reaction diffusion-equation with nearly degenerate bifurcations. **(81i:35082)**
- Sleeman, B. D. Instability of certain traveling wave solutions to the Fitz Hugh-Nagumo nerve axon equations. **(81c:35066)**

35B37 Control [See also 49-XX, 93-XX.]

secondary classifications:

- Aščepkov, L. T. (with Vasil'ev, O. V.; Kovalenok, I. L.) A strong optimality condition for singular controls in a Goursat-Darboux system. (Russian) **(81k:49012)**
- Kovalenok, I. L. See Aščepkov, L. T.; et al., **(81k:49012)**
- Krabs, W. On boundary controllability of one-dimensional vibrating systems. **(81a:93017)**
- Vasil'ev, O. V. See Aščepkov, L. T.; et al., **(81k:49012)**

35B40 Asymptotic behavior of solutions

- Capasso, Vincenzo (with Fortunato, Donato) Asymptotic behaviour for a class of nonautonomous semilinear evolution systems and application to a deterministic epidemic model. **81j:35016**
- Čaus, M. M. On the behavior at infinity of the solutions of a class of systems of equations with variable coefficients. (Russian) **81k:35021**
- Chen, Lu San Note on asymptotic behavior of weak solutions of the Cauchy problem for some parabolic equations with unbounded coefficients. **81c:35009**
- Clorancescu, Doina (with Paulin, Jeannine Saint Jean) Homogenization in open sets with holes. **81j:35017**
- Cosner, Chris Asymptotic behavior of solutions of second order parabolic partial differential equations with unbounded coefficients. **81c:35010**
- Fortunato, Donato See Capasso, Vincenzo, **81j:35016**
- Galaktionov, V. A. (with Kurdjumov, S. P.; Mikhailov, A. P.; Samarskii, A. A.) On

- unbounded solutions of the Cauchy problem for the parabolic equation $u_t = \nabla(u^m \nabla u) + u^p$. (Russian) **81j:35018**
- Gubačev, A. P. Asymptotic behavior of the solutions of quasilinear elliptic equations in an unbounded domain. (Russian. English summary) **81j:35019**
- Hall, William S. (with Šedý, Milan) The Rayleigh and van der Pol wave equations. Extensions and generalizations. **81j:35020**
- Kalishin, L. A. Construction of the asymptotics of the solutions of a small-parameter magnetohydrodynamic problem. II. Rectangular flow in a canal with a rectangular protuberance. Superconductive wall perpendicular to a magnetic field. (Russian) **81i:35018**
- Kifer, Yuri On the principal eigenvalue in a singular perturbation problem with hyperbolic limit points and circles. **81g:35006**
- Krylov, N. V. Passage to the limit in degenerate Bellman equations. I. (Russian) **81j:35021a**
- Passage to the limit in degenerate Bellman equations. II. (Russian) **81j:35021b**
- Kurdjumov, S. P. See Galaktionov, V. A.; et al. **81j:35018**
- Lions, Jacques-Louis Introductory remarks on asymptotic analysis of periodic structures. **81j:35022**
- Lomov, S. A. Asymptotic integration and the Fourier method. (Russian) **81i:35019**
- Mikhailov, A. P. See Galaktionov, V. A.; et al. **81j:35018**
- Muravei, L. A. Asymptotic behavior for large values of time of the solutions of exterior boundary problems for the wave equation with two space variables. (Russian) **81i:35020**
- Nakao, Mitsuhiko (with Narazaki, Takashi) Existence and decay of solutions of some nonlinear parabolic variational inequalities. **81g:35007**
- Narazaki, Takashi See Nakao, Mitsuhiko. **81g:35007**
- Opawa, Hajimu Energy decay for solutions of ultrahyperbolic inequalities. **81c:35011**
- Ouchi, Sumao Asymptotic behaviour of singular solutions of linear partial differential equations in the complex domain. **81m:35019**
- Paulin, Jeanne Saint Jean See Clorancea, Doina. **81j:35017**
- Peradzynski, Zbigniew Asymptotic decay of solutions of hyperbolic systems into simple waves. (Russian summary) **81j:35013**
- Šatardjanov, Ju. Z. Asymptotic behavior of the solution of a boundary value problem for a fourth-order parabolic equation. (Russian) **81c:35020**
- Šamov, A. S. The behavior of solutions of differential equations in a semistrip. (Russian) **81g:35008**
- Šamarskii, A. A. See Galaktionov, V. A.; et al. **81j:35018**
- Šedý, Milan See Hall, William S. **81j:35020**
- Tavhelidze, I. N. Asymptotic behavior of solutions of a polyharmonic equation in the neighborhood of points of the boundary and at infinity. (Russian) **81c:35012**
- Thompson, Mark Asymptotic elliptic estimates and the evaluation of certain trace formulae. (Italian summary) **81c:35013**
- Triggiani, Roberto Boundary feedback stabilizability of parabolic equations. **81m:35020**
- secondary classifications:
- Abdullaev, F. H. (with Abdumalikov, A. A.; Rahmatov, A. S.) Solution of a nonlinear parabolic equation with random coefficients. (Russian) **(81m:35141)**
- Abdumalikov, A. A. See Abdullaev, F. H.; et al. **(81m:35141)**
- Babić, V. M. Geometric-optical methods in the theory of elastic waves. (Russian) **(81g:73032)**
- Battle, Guy A., III A generalization of small data techniques and its application. **(81g:35072)**
- Belov, V. V. (with Vorob'ev, E. M.) ★Сборник задач по дополнительным главам математической физики. (Russian) [A collection of problems in supplementary chapters of mathematical physics] **(81k:00003)**
- Bensoussan, A. (with Lions, Jacques-Louis; Papanicolaou, George C.) Homogenization and ergodic theory. **(81h:60101)**
- Bobisud, L. E. (with Christenson, C. O.) A singular singularly perturbed system of nonlinear parabolic equations from chemical kinetics. **(81f:35014)**
- Bogovskii, M. E. See Maslennikova, V. N. **(81g:46040)**
- Capasso, Vincenzo (with Fortunato, Donato) Stability results for a diffusive nonlinear deterministic epidemic model. (Italian summary) **(81c:35063)**
- Christenson, C. O. See Bobisud, L. E. **(81f:35014)**
- Danilov, A. A. (with Ivanov, V. I.) Corrections to Fok asymptotics for a diffraction field near a surface of nonconstant curvature. (Russian) **(81k:78012)**
- Dias, João-Paulo (with Mário, Figueira) Décroissance à l'infini de la solution d'une équation non linéaire du type Schrödinger-Hartree. (English summary) **(81m:35122)**
- Dhamadžia, R. G. Asymptotic distribution of eigenfunctions of the third and fourth oscillation problems of the couple-stress theory of elasticity. (Russian. Georgian and English summaries) **(81g:73033)**
- Domnăci, V. M. Asymptotic solution of a system of integro-differential equations with retarded argument. (Ukrainian. English and Russian summaries) **(81k:45023)**
- Ebihara, Yukiyoši Nonlinear wave equations with variable coefficients. **(81k:35085)**
- Edneral, V. F. (with Troilin, S. M.; Tjurin, N. E.) Expansion of scattering amplitude at large momentum transfer. (Russian. English summary) **(81h:81123)**
- Eidel'man, S. D. See Porper, F. O. **(81g:35042)**
- Ewer, J. P. G. Asymptotic properties of nonlinear diffusion processes. **(81f:35062)**
- Fortunato, Donato See Capasso, Vincenzo. **(81c:35063)**
- Gardner, Robert A. Asymptotic behavior of semilinear reaction-diffusion systems with Dirichlet boundary conditions. **(81f:35065)**
- Grassman, J. Small random perturbations of dynamical systems with applications in population genetics. **(81c:92004)**
- Iosifjan, G. A. The Saint-Venant principle for flows of a viscous incompressible fluid. (Russian) **(81d:76031)**
- Ivanov, V. I. See Danilov, A. A. **(81k:78012)**
- Jurinskii, V. V. Averaging of an elliptic boundary value problem with random coefficients. (Russian) **(81k:35167)**
- Kalantarov, V. K. (with Ladyženskaja, O. A.) Stabilization of the solutions of a certain class of quasilinear parabolic equations as $t \rightarrow \infty$. (Russian) **(81i:35085)**
- Ladyženskaja, O. A. See Kalantarov, V. K. **(81i:35085)**
- Lahturov, S. S. See Landis, E. M. **(81d:35021)**
- Landis, E. M. (with Lahturov, S. S.) Behavior at infinity of solutions to elliptic equations that are periodic in all variables but one. (Russian) **(81d:35021)**
- Lee, Shung Wu Uniform asymptotic theory of electromagnetic edge diffraction: a review. **(81j:78017)**
- Lin, Jeng Eng On the generalized Korteweg-de Vries equation. **(81e:35116)**
- Lions, Jacques-Louis Asymptotic expansions in perforated media with a periodic structure. **(81f:35031)**
- See also Bensoussan, A.; et al. **(81h:60101)**
- Mallik, S. K. (with Singh, Manohar) Nonlinear surface waves in self-gravitating fluids. **(81h:76010)**
- Mário, Figueira See Dias, João-Paulo. **(81m:35122)**
- Maslennikova, V. N. (with Bogovskii, M. E.) The density of compactly supported solenoidal vector fields. (Russian) **(81g:46040)**
- Melrose, Richard B. Forward scattering by a convex obstacle. **(81k:35126)**
- de Mottoni, Piero (with Rothe, F.) Convergence to homogeneous equilibrium state for generalized Volterra-Lotka systems with diffusion. **(81b:92008)**
- See also Rothe, F. **(81f:35067)**
- Mukminov, F. H. Behavior as $t \rightarrow \infty$ of solutions of the first mixed problem for the heat equation in domains that are unbounded with respect to the space variables. (Russian) **(81b:35041)**
- Novikolenko, V. Ju. Asymptotic behavior as $t \rightarrow \infty$ of the solution of the Cauchy problem for a nonlinear Schrödinger equation. (Russian) **(81f:81015)**
- Pao, C. V. Asymptotic behavior of solutions for a parabolic equation with nonlinear boundary conditions. **(81m:35074)**
- Papanicolaou, George C. See Bensoussan, A.; et al. **(81h:60101)**
- Parker, D. F. An asymptotic analysis of large deflections and rotations of elastic rods. **(81g:73071)**
- Pjatilekii, A. L. A parabolic equation with rapidly oscillating coefficients. (Russian. English summary) **(81f:35050)**
- Porper, F. O. (with Eidel'man, S. D.) Theorems on the asymptotic nearness of solutions of second-order multidimensional parabolic equations. (Russian) **(81g:35042)**
- Rahmatov, A. S. See Abdullaev, F. H.; et al. **(81m:35141)**
- Rothe, F. (with de Mottoni, Piero) A simple system of reaction-diffusion equations describing morphogenesis: asymptotic behavior. **(81f:35067)**
- See also de Mottoni, Piero. **(81b:92008)**
- Shibata, Yoshihiro Liouville type theorem for a system $\{P(D), B_j(D), j=1, \dots, p_j\}$ of differential operators with constant coefficients in a half space. **(81g:35016)**
- Singh, Manohar See Mallik, S. K. **(81h:76010)**
- Skirgano, M. M. High-energy asymptotics of the potential scattering amplitude. (Russian) **(81a:35004)**
- Tjurin, N. E. See Edneral, V. F.; et al. **(81h:81123)**
- Troilin, S. M. See Edneral, V. F.; et al. **(81h:81123)**
- Usaka, Hiroshi The total energy decay of solutions for the wave equation with a dissipative term. **(81f:35071)**
- Vorob'ev, E. M. See Belov, V. V. **(81k:00003)**
- Voros, A. Symbol calculus by symbolic computation and semiclassical expansions. **(81i:81025)**
- Webb, G. F. Existence and asymptotic behavior for a strongly damped nonlinear wave equation. **(81i:35116)**
- 35B45 A priori estimates
- Ezin, J. P. Estimées de Schauder pour des opérateurs elliptiques. (See **80j:53064**)
- Lemmer, Roland Unter- und Oberfunktionen und Differentialungleichungen zweiter Ordnung in normierten Räumen. (English summary) **81d:35006**
- Purmonen, Velkko T. On generalized a priori estimates for quasi-elliptic differential operators. **81i:35021**
- Stakgold, I. Gradient bounds for plasma confinement. **81k:35022**
- secondary classifications:
- Čaus, M. M. On the behavior at infinity of the solutions of a class of systems of equations with variable coefficients. (Russian) **(81k:35021)**
- Filatov, V. V. The stability of the Cauchy problem for certain types of differential equations. (Russian) **(81j:35014)**
- Foht, O. S. Estimates of the solutions of equations of elliptic type in the L_2 metric with participation of traces on the boundary of the domain. (Russian) **(81c:35040)**
- Frank, Léonid S. Coercive singular perturbations. I. A priori estimates. **(81b:35025)**
- Glaquinta, M. (with Modica, G.) Regularity results for some classes of higher order nonlinear elliptic systems. **(81a:35035)**
- Ivočkina, N. M. Second-order differential equations with d -elliptic operators. (Russian) **(81i:35018)**
- Knightly, George H. Some decay properties of solutions of the Navier-Stokes equations. **(81c:35104)**
- Kruzhov, S. N. Quasilinear parabolic equations and systems with two independent variables. (Russian) **(81d:35046)**
- Lakshmikantham, V. (with Vaughn, Randy) Parabolic differential inequalities in cones. **(81c:35064)**
- Mamedov, I. T. On a priori estimation of the Hölder norm of the solutions to quasilinear parabolic equations with discontinuous coefficients. (Russian) **(81m:35064)**
- Maz'ja, V. G. (with Plamenevskii, B. A.) On the first boundary value problem for the equations of hydrodynamics in a domain with a piecewise smooth boundary. (Russian) **(81k:35133)**
- Modica, G. See Glaquinta, M. **(81a:35035)**
- Naval, Saïed Ahmed Serif Mixed problem for hyperbolic equations in domains with nonsmooth boundary. (Russian. English summary) **(81j:35070)**
- Plamenevskii, B. A. See Maz'ja, V. G. **(81k:35133)**
- Vaughn, Randy See Lakshmikantham, V. **(81c:35064)**

35B50 Maximum principles

- Mureşan, Anton S. (with Mureşan, Viorica) Ein maximales Prinzip für stark elliptische Systeme mit einer geraden Anzahl von partiellen Differentialgleichungen. (81c:35014)
- Mureşan, Viorica See Mureşan, Anton S. (81c:35014)
- Payne, L. E. On explicit norm inequalities and their applications in partial differential equations. (81c:35021)

secondary classifications:

- Kilman, Norbert Ein Maximumprinzip für nichtlineare parabolische Systeme. (81g:35052)
- Maddalena, Lucia Maximum principle for subsolutions of weakly coupled quasilinear systems. (Italian. English summary) (81j:35061)
- Rassias, John Michael A maximum principle in R^n . (81k:35092)
- Roland, Francesca A maximum principle for the solution to the nonlinear heat equation that is discontinuous with respect to the unknown. (Italian) (81d:35040)
- Voss, Heinrich (with Werner, Bodo) Ein Quotienteneinschließungssatz für den kritischen Parameter nichtlinearer Randwertaufgaben. (81i:65085)
- Werner, Bodo See Voss, Heinrich. (81i:65085)

35B60 Continuation and prolongation [See also 58A15, 58A17, 58Hxx.]

secondary classifications:

- Millar, Robert F. The analytic continuation of solutions to elliptic boundary value problems in two independent variables. (81j:35025)

35B65 Smoothness of solutions

- Sarason, Jukka Über das Verhalten der Lösungen der Maxwell'schen Randwertaufgabe in Gebieten mit Kegelspitzen. (English summary) (81g:35009)

secondary classifications:

- Černjavskii, A. G. Operator quasianalyticity for functions of several variables. (Russian) (81m:26016)
- Ivrii, V. Ja. Propagation of the singularities of the solution of a wave equation in a domain that contains corner points. (Russian) (81j:35069)
- Klainerman, Sergiu (with Majda, Andrew) Formation of singularities for wave equations including the nonlinear vibrating string. (81f:35000)
- Lasiecka, Irene Unified theory for abstract parabolic boundary problems—a semigroup approach. (81m:35077)
- Majda, Andrew See Klainerman, Sergiu. (81f:35000)
- Masuda, Kyōya On the regularity of solutions of the nonstationary Navier-Stokes equations. (81f:35095)
- Pecher, Hartmut (with von Wahl, Wolf) Time dependent nonlinear Schrödinger equations. (81k:35106)
- Šamaev, A. S. Removable singular points for the solutions of parabolic systems. (Russian. English summary) (81d:35042)
- von Wahl, Wolf Regularitätsfragen für die instationären Navier-Stokes'schen Gleichungen in höheren Dimensionen. (81k:35137)
- See also Pecher, Hartmut. (81k:35106)
- Zachmanoglou, E. C. Manifolds with arbitrary submanifolds of nonanalyticity of solutions of linear PDEs. (81f:35008)

35B99 None of the above, but in this section

- Bahvalov, N. S. Averaging of partial differential equations with rapidly oscillating coefficients. (Russian) (See 80f:35002)
- Eidel'man, S. D. See Kondrat'ev, V. A. (See 80f:35002)
- Kondrat'ev, V. A. (with Eidel'man, S. D.) Properties of positive solutions of systems of partial differential equations. (Russian) (See 80f:35002)
- Kučment, P. A. Bloch solutions of periodic partial differential equations. (Russian) (81d:35007)
- Littman, Walter Remarks on decay rates of partial differential equations in infinite domains in R^n . (81k:35008)
- Nikol'skii, E. V. Generalized, functionally invariant solutions of second-order two-dimensional equations and first-order systems. (Russian) (81b:35009)

secondary classifications:

- Alyev, A. S. Some theorems of Phragmén-Lindelöf type for the solutions of second order linear elliptic equations. (Russian) (See 80d:00021)
- Burilacenco, V. P. (with Sidenko, M. I.) On improving the solutions of integral inequalities of the Gronwall-Bellman type. (Russian) (81m:26010)
- Egorov, Ju. A. Local properties of pseudodifferential operators with simple real characteristics. (Russian) (See 80f:35002)
- Grammaticos, B. (with Voros, A.) Semiclassical approximations for nuclear Hamiltonians. I. Spin-independent potentials. (81m:81077a)
- (with Voros, A.) Semiclassical approximations for nuclear Hamiltonians. II. Spin-dependent potentials. (81m:81077b)
- Heffler, B. (with Mattera, Cl.) Analyticité et itérés réduits d'un système de champs de vecteurs. (81m:35034)
- Mattera, Cl. See Heffler, B. (81m:35034)
- Melrose, Richard B. Singularities of solutions to boundary value problems. (81m:35145)
- Sidenko, M. I. See Burilacenco, V. P. (81m:26010)
- Voros, A. See Grammaticos, B. (81m:81077a) and Grammaticos, B. (81m:81077b)

35Cxx Representations of solutions

35C05 Solutions in closed form

- Abdullaev, E. A. See Berkinov, H. B. (81b:35002)
- Aldashev, S. A. The Cauchy problem for a 2nd order equation. (Russian) (81b:35010)
- Berkinov, H. B. (with Abdullaev, E. A.) Representation in symbolic operators of the solutions of second-order linear partial differential equations. (Russian) (81b:35002)
- Pasquini, Lionello Systems of linear and homogeneous partial differential equations that have a prescribed linear manifold of solutions. (Italian. English summary) (81g:35018)
- Šapovalov, V. N. Symmetry and the separation of variables in a second-order linear differential equation. II. (Russian) (81g:35011b)
- Žumabekov, L. Construction of the solution of an initial-boundary value problem for a system with the aid of a selection operator. (Russian) (81j:35023)

secondary classifications:

- Aprejan, L. A. Padé approximation. (A survey). (Russian) (81i:41013)
- Asari, Aldo On the determination of the periodic solution of the diffusion equation with periodic impulse. (Italian) (81j:35052)
- Azzam, Ali (with Kreyszig, Erwin) Construction of kernels of integral operators for linear partial differential equations. (81i:35022)
- Berezovskii, A. A. (with Bopulavskii, A. S.) Exact solutions of nonlinear problems of turbulent diffusion with account taken of the dependence of the diffusion coefficient on the scale, time and impurity concentration. (Russian) (81g:86001)
- Berglez, Peter Über eine partielle Differentialgleichung, die bei der Behandlung gewisser inhomogener Differentialgleichungen von Bedeutung ist. (English summary) (81m:35029)
- Bicadze, A. V. Über einige Klassen exakter Lösungen des Systems der Maxwell-Einsteinschen Gleichungen. (Russian) (81j:83023)
- Bopulavskii, A. S. See Berezovskii, A. A. (81g:86001)
- Burt, Philip B. Exact solutions of nonlinear generalizations of the wave equation. (81b:35090)
- Dedushiev, A. V. See Korobeinik, Ju. F. (81g:35069)
- Demkov, Ju. N. (with Komarov, I. V.) Hypergeometric particular solutions in the two-center Coulomb problem. (Russian. English summary) (81a:81019)
- Goyal, A. N. (with Jain, K. C.) On partial differential equations and generalised hypergeometric functions. (Hindi. English summary) (81e:33004)
- Haddow, J. B. See Singh, Brij M.; et al. (81m:73071)
- Jain, K. C. See Goyal, A. N. (81e:33004)
- Kečkić, Jovan D. On some classes of linear equations. II. (81h:39013)
- Komarov, I. V. See Demkov, Ju. N. (81a:81019)
- Korobeinik, Ju. F. (with Dedushiev, A. V.) Solution of a mixed problem by the Fourier method. (Russian) (81g:35069)
- Kreyszig, Erwin See Azzam, Ali. (81i:35022)
- Lomov, S. A. Asymptotic integration and the Fourier method. (Russian) (81i:35019)
- Mamourian, A. General transmission and boundary value problems for first-order elliptic equations in multiply-connected plane domains. (81c:35051)
- Miura, Robert M. Explicit roots of the cubic polynomial and applications. (81f:35109)
- Moodie, T. Bryant See Singh, Brij M.; et al. (81m:73071)
- Narkun, Z. M. The summation theorem for "interior" fundamental solutions of Laplace equations in elliptic coordinates. (Russian. English summary) (81f:35030)
- Orfanidis, Sophocles J. σ models of nonlinear evolution equations. (81d:81016)
- Sanders, J. Lyell, Jr. The cylindrical shell loaded by a concentrated normal force. (81m:73066)
- Serov, V. S. Fundamental solution of a differential operator with a singularity. (Russian) (81f:35047)
- Singh, Brij M. (with Moodie, T. Bryant; Haddow, J. B.) Closed-form solutions for finite-length crack moving in a strip under antiplane shear stress. (81m:73071)

35C10 Series solutions, expansion theorems

- Arya, J. C. (with Bojardiev, G. N.) Damped oscillating systems modeled by hyperbolic differential equations with slowly varying coefficients. (German summary) (81e:35022)
- Arzanyh, I. S. A class of solutions of a Lamé system by means of homogeneous harmonic functions. (Russian) (81d:35008)
- Barvinskii, A. F. See Sokil, B. I. (81e:35023)
- Bautin, S. P. Convergence of a logarithmic series solving a nonlinear Cauchy problem with data on the line of parabolic degeneracy. (Russian) (81k:35023)
- Bojardiev, G. N. See Arya, J. C. (81e:35022)
- Boltner, K. S. Analytic representation of a manifold of solutions for a second-order differential equation with a singular line. (Russian) (81d:35009)
- Gronau, Detlef (with Reich, Ludwig) Meromorphe Lösungen einer Klasse linearer partieller Differentialgleichungen. (81m:35021)
- Kaplan, Stanley Formal and convergent power series solutions of singular partial differential equations. (81j:35024)
- Perko, Richard Zur Theorie der partiellen Differentialgleichungen vom Briot-Bouquet'schen Typ. (81g:35012)
- Pervak, V. D. See Valeev, K. G. (81d:35010)
- Reich, Ludwig See Gronau, Detlef. (81m:35021)
- Sokil, B. I. (with Barvinskii, A. F.) Asymptotic solution of a nonlinear boundary value problem. (Russian. English summary) (81e:35023)
- Valeev, K. G. (with Pervak, V. D.) Foundation and application of Hill's method to parabolic equations. (Russian) (81d:35010)
- Zlatin, A. N. Some theorems on expansion in homogeneous solutions for a cylinder. (Russian. Armenian and English summaries) (81h:35003)

secondary classifications:

- Ahner, John F. (with Hamilton, Eugene P.) A representation for the reproducing kernel for elliptic systems. (81f:35039)

- Boltsev, K. S. See Radzibov, N., (81c:30088)
- van der Burgh, A. H. P. On the asymptotic validity of perturbation methods for hyperbolic differential equations. (81b:35005)
- Fisch, Nathaniel (with Kruskal, Martin D.) Separating variables in two-way diffusion equations. (81m:35075)
- Fryant, Allan J. Growth and complete sequences of generalized bi-axially symmetric potentials. (81c:31003)
- Ganapol, B. D. Solution of the time-dependent monoenergetic neutron transport equation in a semi-infinite medium. (81f:82045)
- Hamilton, Eugene P. See Akner, John F., (81f:35039)
- Kashiwara, Masaki (with Kawai, Takahiro; Sjöstrand, Johannes) On a class of linear partial differential equations whose formal solutions always converge. (81a:35004)
- Kawai, Takahiro See Kashiwara, Masaki; et al., (81a:35004)
- Kruskal, Martin D. See Fisch, Nathaniel, (81m:35075)
- Lo, Chi Young Expansions in terms of generalized Helmholtz polynomials and associated functions. (81k:35018)
- (Marčuk, G. I.) See Sultangaziev, U. M., (81h:82056)
- Melkhaev, E. P. The Dirichlet problem for elliptic systems of second-order differential equations in the upper half-plane. (Russian. Armenian and English summaries) (81c:35043)
- Radzibov, N. (with Boltsev, K. S.) A representation of a manifold of solutions of a generalized Cauchy-Riemann system with a singular line. (Russian) (81c:30088)
- Romanov, A. V. The Neumann method of boundary value problems for the Helmholtz equation. (Russian) (81k:35038)
- Sazonov, A. Ju. The Fourier method for certain singular hyperbolic equations. (Russian) (81j:35071)
- Sjöstrand, Johannes See Kashiwara, Masaki; et al., (81a:35004)
- Sultangaziev, U. M. ★Методы сферических гармоник в дискретных ординатах в задачах кинетической теории переноса. (Russian) [Methods of spherical harmonics and discrete ordinates in problems of kinetic transport theory] (81h:82056)
- Vinogradov, V. S. Liouville theorems for an equation of generalized analytic functions. (Russian) (81c:35028)

35C15 Integral representations

- Abrahamov, M. A. Solution of a conjugacy problem, homogeneous with respect to a three-dimensional variable, of equations of parabolic and elliptic type by the contour integral method. (Russian) 81g:35013
- Azzam, Ali (with Kreyszig, Erwin) Construction of kernels of integral operators for linear partial differential equations. 81i:35022
- (with Kreyszig, Erwin) On a method for constructing Bergman kernels. 81k:35024
- Čern, M. M. Variant of the Phragmén-Lindelöf theorem for solutions of a system of differential equations (in the L_p metric). (Russian) 81f:35017
- Florian, Helmut (with Heersink, Rudolf) Differentialoperatoren in der Funktionentheorie elliptischer Gleichungen. 81k:35004
- Heersink, Rudolf See Florian, Helmut, 81k:35004
- Ivanishin, S. D. The Green matrices of general boundary value problems for arbitrary systems that are parabolic in the sense of I. G. Petrovskii. (Russian. English summary) 81d:35011
- Kreyszig, Erwin Function-theoretic integral operator methods for partial differential equations. 81i:35023
- See also Azzam, Ali, 81i:35022 and Azzam, Ali, 81k:35024
- Mamedov, Ju. A. Some conditions for solvability of boundary value problems in the first quadrant. (Russian. Azerbaijani and English summaries) 81k:35025
- Marichev, O. I. An integral representation of the solutions of a generalized biaxially symmetric Helmholtz equation and formulas for its inversion. (Russian) 81c:35024
- McCoy, Peter A. Polynomial approximation and growth of generalized axisymmetric potentials. 81b:35011
- Miller, Robert F. The analytic continuation of solutions to elliptic boundary value problems in two independent variables. 81j:35025
- (Petrovskii, I. G.) See Ivanishin, S. D., 81d:35011
- Radzibov, N. Analogues of the Poisson formula for a class of second-order equations with two and three singular planes. (Russian) 81c:35015
- Elementary solutions and integral representations for a second-order equation with two and three singular planes. (Russian) 81c:35016
- Representation of a manifold of solutions and investigation of boundary value problems for certain systems of higher-order differential equations with singular hyperplanes. (Russian) 81d:35012
- Watson, N. A. Uniqueness and representation theorems for the inhomogeneous heat equation. 81c:35017

secondary classifications:

- Čirkunov, Ju. A. Construction of generalized Poisson formulas by group analysis methods. (Russian) (81c:35005)
- Fedoruk, L. O. See Lenjuk, M. P.; et al., (81d:80007)
- Fedoruk, V. V. See Lenjuk, M. P.; et al., (81d:80007)
- Flar, M. On a certain boundary problem for the equation $\Delta^2 u - C^2 u = f(X)$. (81m:35046)
- Lenjuk, M. P. (with Fedoruk, V. V.; Fedoruk, L. O.) Dynamic temperature fields in a space with a solid cylindrical insertion. (Russian. English summary) (81d:80007)
- McCoy, Peter A. Analytical properties of generalized biaxially symmetric potentials. (81c:31009)
- Samsonija, Z. V. The Green function for a class of second-order elliptic differential equations. (Russian) (81c:35038)
- Scott, Edward J. Green's functions in an octant for mixed problems relative to the Laplace equation. I. (81m:35037)
- Vigak, V. M. Construction of the solution of the heat equation for a piecewise-homogeneous body. (Russian. English summary) (81k:65107)
- Walschki, Eugenluz On the quaspotential for the circle and the ball. (81f:31012)

- Wachulka, Adam On the Dirichlet problem for certain angular domain. (81h:35009)
- Wilcox, Calvin H. Positive temperatures with prescribed initial heat distributions. (81i:35077)

35C20 Asymptotic expansions

- Gaeva, E. A. (with Kolomišev, V. G.) The construction of an asymptotic expansion of the solution of an integro-partial differential equation with slowly changing parameters. (Russian) 81a:35013
- Golopuz, S. A. A problem for elliptic equations with a small parameter for which the degenerate problem has an infinite-dimensional kernel. (Russian. English summary) 81i:35024
- Hohlov, R. V. See Sukhorukov, A. P., (See 80f:35002)
- I'in, A. M. The method of matched asymptotic expansions in the study of some elliptic boundary value problems. (Russian) (See 80f:35002)
- Kolomišev, V. G. See Gaeva, E. A., 81a:35013
- Močnikov, B. I. Methods of constructing asymptotic solutions for partial differential equations of quasihyperbolic type. (Russian) 81d:35013
- Panasenko, G. P. Higher-order asymptotics of the solutions of problems on the contact of periodic structures. (Russian) 81f:35018
- Starkov, A. S. Asymptotic solution of two-scale problems of wave propagation in the presence of points of local degeneracy. (Russian. English summary) 81a:35014
- Sukhorukov, A. P. (with Hohlov, R. V.) Asymptotic methods for partial differential equations. (Russian) (See 80f:35002)

secondary classifications:

- Allen, R. G. Asymptotic expansion of solutions of partial differential equations with deviating argument. (Russian) (81g:35114)
- Babik, V. M. Point source of oscillations near a concave mirror. II. (Russian. English summary) (81b:35018)
- Belov, V. V. (with Vorob'ev, E. M.) ★Сборник задач по дополнительным главам математической физики. (Russian) [A collection of problems in supplementary chapters of mathematical physics] (81k:00003)
- Gaiduk, S. I. A mathematical discussion of a problem of mechanical shock along a rectangular elastic membrane. (Russian. English summary) (81g:73000)
- Greenberg, James Spiral waves for λ - ω systems. (81m:76012)
- Grinfel'd, M. A. On the nonlinear theory of the head wave. (Russian) (81f:73009)
- Jamnikas, A. I. Pseudoregular singularities of solutions of degenerate elliptic equations. (Russian) (81g:35039)
- Ju, Frederick D. See Ma, Chih Cheng, (81k:73038)
- Kashiwara, Masaki Microlocal analysis. (81i:35129)
- Kirpichikova, N. Ja. Uniform asymptotic expansion of eigenfunctions of whispering gallery type. (Russian. English summary) (81a:35018)
- Kozlov, S. M. Averaging of differential operators with almost periodic rapidly oscillating coefficients. (Russian) (81m:35017)
- Ma, Chih Cheng (with Ju, Frederick D.) On the shear boundary layer of tension plates. (81k:73038)
- Marshall, Bernard (with Strauss, Walter Alexander; Wainger, Stephen) Estimates from L^p to L^q dual for the Klein-Gordon equation. (81a:35053)
- Molotkov, I. A. Diffraction by a convex curve with impedance variable and large in modulus. Degeneration of creeping waves. (Russian) (81g:78029)
- Nazarov, S. A. Asymptotic behavior with respect to a parameter of the solution to a boundary value problem that is elliptic in the sense of Agranovskii-Vil'k in a domain with conical points. (Russian) (81a:35030)
- Nikolov, A. I. Problems of an intense external field in quantum electrodynamics. (Russian) (81h:81203)
- Parker, D. F. The decay of sawtooth solutions to the Burgers equation. (81d:35086)
- Ritus, V. I. Quantum effects of the interaction of elementary particles with an intense electromagnetic field. (Russian) (81k:81204)
- Sabzevaliev, M. M. Asymptotic behavior of the solution of a boundary value problem for a one-characteristic third-order differential equation with a small parameter. (Russian. Azerbaijani and English summaries) (81a:35012)
- Strauss, Walter Alexander See Marshall, Bernard; et al., (81a:35053)
- Su, Yu Cheng Asymptotic solution of singular perturbation Cauchy problems for quasilinear second-order hyperbolic partial differential equations. (Chinese. English summary) (81j:35011)
- Vakulenko, S. A. The solutions of nonlinear equations concentrated near curves on a plane. (Russian. English summary) (81b:35032)
- Vorob'ev, E. M. See Belov, V. V., (81k:00003)
- Wainger, Stephen See Marshall, Bernard; et al., (81a:35053)

35C99 None of the above, but in this section

- Bauer, Karl Wilhelm Differentialoperatoren bei verallgemeinerten Euler-Gleichungen. (English summary) 81m:35022
- Filippov, A. F. Diffraction by polyhedra. (Russian) (See 80f:35002)
- Knauff, W. (with Kref, Rainer) On the exterior boundary-value problem for the time-harmonic Maxwell equations. 81a:35015
- Kref, Rainer See Knauff, W., 81a:35015
- Nakamura, Akira A direct method of calculating periodic wave solutions to nonlinear evolution equations. I. Exact two-periodic wave solution. 81m:35023a
- A direct method of calculating periodic wave solutions to nonlinear evolution equations. II. Exact one- and two-periodic wave solution of the coupled bilinear equations. 81m:35023b
- Roşcalet, Marcel N. Algèbres avec radical, associées aux systèmes d'équations aux dérivées partielles, itérées. (Romanian summary) 81f:35019
- Schmidt, Dieter (with Wolf, Gerhard) A method of generating integral relations by the simultaneous separability of generalized Schrödinger equations. 81c:35019
- Wolf, Gerhard See Schmidt, Dieter, 81c:35019

secondary classifications:

- Buhvalov, N. S. Averaging of partial differential equations with rapidly oscillating coefficients. (Russian) (See 80f:35002)
- Bilimov, S. M. (with Bogoslavov, I. S.; Karačun, V. Ja.; Ovsienko, V. G.) Application of the theory of thermal potentials to the solution of a boundary value problem of heat conduction in a cylindrical layer. (Russian) (81m:80002)
- Bogoslavov, I. S. See Bilimov, S. M.; et al., (81m:80002)
- Byrkin, A. P. Some classes of self-similar solutions of Barnett equations. (Russian) (81a:76021)
- Crosta, Giovanni Diffraction in dispersive media: a system-theoretical approach. (French and German summaries) (81d:70022)
- Filatov, V. V. Analytic continuation from a discrete set of solutions of the heat equation. (Russian) (81d:35039)
- Kahane, E. G. (with Miller, Willard, Jr.) Killing tensors and variable separation for Hamilton-Jacobi and Helmholtz equations. (81m:53026)
- Karačun, V. Ja. See Bilimov, S. M.; et al., (81m:80002)
- Kečkić, Jovan D. Analogies between differential and difference equations. II. First and nonparabolic second-order partial equations with constant coefficients. (81m:39004)
- Kučment, P. A. See Zelenko, L. B., (81a:35008)
- Miller, Willard, Jr. See Kahane, E. G., (81m:53026)
- Neu, John C. The method of near-identity transformations and its applications. (81m:70031)
- Ovsienko, V. G. See Bilimov, S. M.; et al., (81m:80002)
- Ramès, J.-P. Solutions Gervé des équations différentielles à points singuliers irréguliers. (81j:58008)
- Sarmen, Jukka On decomposition of solutions of some higher order elliptic equations. (81k:35056)
- Spring, Wolfgang Anwendung der analytischen Theorie der Quaternionen zur Lösung räumlicher Probleme der linearen Elastizität in beschränkten Gebieten. (81h:73007)
- Vereščagina, L. I. Invariant solutions of equations of a three-dimensional nonstationary boundary layer. (Russian. English summary) (81k:35011)
- Wolfe, Peter On diffracted wave fronts. (81d:78029)
- Zaplavni, V. I. Construction of the density of the Lagrangian function from a given system of second-order partial differential equations. (Russian. English summary) (81a:49002)
- Zelenko, L. B. (with Kučment, P. A.) The Floquet representation of exponentially growing solutions of elliptic equations with periodic coefficients. (Russian) (81a:35008)

35Dxx Generalized solutions

35D05 Existence of generalized solutions

- Dinraev, A. Formulation of well-posed boundary value problems for some nonclassical systems. (Russian) (81k:35026)

secondary classifications:

- Atkinson, C. (with Bouillet, Julio E.) Some qualitative properties of solutions of a generalized diffusion equation. (81a:35049)
- di Benedetto, Emmanuele See Cammon, John R., (81k:35074)
- Bouillet, Julio E. See Atkinson, C., (81a:35049)
- Bove, Antonio (with Franchi, Bruno; Obrecht, Enrico) An initial-boundary value problem with mixed lateral conditions for heat equation. (Italian summary) (81c:35058)
- Cammon, John R. (with di Benedetto, Emmanuele) On the existence of solutions of boundary value problems in fast chemical reactions. (Italian summary) (81k:35074)
- de Figueiredo, Djairo Guedes (with Ni, Wei Ming) Perturbations of second order linear elliptic problems by nonlinearities without Landesman-Lazer condition. (81k:35052)
- Franchi, Bruno See Bove, Antonio; et al., (81c:35058)
- Kordadze, A. A. The solvability of a three-dimensional stationary quasilinear problem of the baroclinic ocean. (Russian) (81d:86003)
- Lar'kin, N. A. Quasilinear hyperbolic equations with dissipation. (Russian) (81i:35117)
- Ni, Wei Ming See de Figueiredo, Djairo Guedes, (81k:35052)
- Nikol'skiĭ, E. V. Generalized, functionally invariant solutions of second-order two-dimensional equations and first-order systems. (Russian) (81b:35009)
- Obrecht, Enrico See Bove, Antonio; et al., (81c:35058)
- Teo, K. L. Existence and uniqueness of solutions of system governed by second-order quasilinear integro-partial differential equations of parabolic type. (81j:35066)

35D10 Regularity of generalized solutions

- Ball, J. M. Strict convexity, strong ellipticity, and regularity in the calculus of variations. (81d:35014)
- Daniljuk, G. L. (with Skripnik, I. V.) Partial regularity of generalized solutions of quasilinear parabolic systems. (Russian) (81k:35012)
- Domarkas, A. On the regularity of solutions of quasilinear elliptic equations with one-sided boundary conditions. (Russian. Lithuanian and English summaries) (81i:35025)
- Gariepy, Ronald (with Ziemer, William P.) Removable sets for quasilinear parabolic equations. (81j:35026)
- Godin, Paul Propagation des singularités pour les opérateurs différentiels de type principal, localement résolubles, à coefficients analytiques, en dimension 2. (English summary) (81m:35024)
- Grigis, Alain Propagation des singularités pour des opérateurs pseudodifférentiels à caractéristiques doubles. (81m:35025)
- Kozlova, O. N. Summability of weak positive solutions of certain degenerate systems of partial differential equations in the case of a weighted scalar product. (Russian) (81c:35020)

- Skripnik, I. V. Regularity of generalized solutions of quasilinear elliptic equations of arbitrary order. (Russian) (See 80f:35002)

See also Daniljuk, G. L., 81b:35012

- Ziemer, William P. See Gariepy, Ronald, 81j:35026

secondary classifications:

- Agapova, T. M. Some properties of generalized solutions of the Neumann problem for higher-order quasilinear elliptic equations. (Russian) (81a:35028)
- Barros-Neto, J. Analytic hypoellipticity of operators of principal type. (81c:35031)
- Birolli, Marco A Hölder-continuity result for the solution of certain quasivariational inequalities. (Italian. English summary) (81i:49002)
- Borchers, H. J. (with Garber, W. D.) Analyticity of solutions of the $O(N)$ nonlinear σ -model. (81c:35047)
- Galaktionov, V. A. (with Kurdjumov, S. P.; Mihalov, A. P.) Metastable localization of disturbances in problems for equations of nonlinear heat conduction type. (Russian. English summary) (81j:35050)
- Garber, W. D. See Borchers, H. J., (81c:35047)
- Giulianta, M. (with Modica, G.) Regularity results for some classes of higher order nonlinear elliptic systems. (81a:35035)
- Godin, Paul On a class of pseudodifferential operators with double characteristics. (81j:35112)
- Kurdjumov, S. P. See Galaktionov, V. A.; et al., (81j:35050)
- Lichnerowicz, A. Solutions généralisées du problème des surfaces minimales pour des données au bord non bornées. (81b:35035)
- Mihalov, A. P. See Galaktionov, V. A.; et al., (81j:35050)
- Modica, G. See Giulianta, M., (81a:35035)
- Navai, Saeed Ahmed Sherif Mixed problem for hyperbolic equations in domains with nonsmooth boundary. (Russian. English summary) (81j:35070)
- Nečas, Jindřich On the regularity of weak solutions to variational equations and inequalities for nonlinear second order elliptic systems. (81f:35038)
- Orazov, M. B. Completeness of elementary solutions in the problem of steady-state oscillations of an elastic rectangular plate. (Russian) (81j:35050)
- Šiklov, A. E. Classical solvability of the Dirichlet problem for a strongly elliptic Monge-Ampère equation. (Russian) (81a:35039)
- Sjöstrand, Johannes Reflexion des singularités analytiques. (81i:35031)
- Propagation of analytic singularities for second order Dirichlet problems. (81c:35031a)
- Propagation of analytic singularities for second order Dirichlet problems. II. (81c:35031b)
- Torelli, Alessandro Some regularity results for a family of variational inequalities. (81d:35027)

35D99 None of the above, but in this section

secondary classifications:

- Mihalov, V. P. On the boundary values of the solutions of elliptic equations. (81k:35038)
- Petrusko, I. M. On boundary values in E_p , $p > 1$, of solutions to parabolic equations. (Russian) (81j:35045)

35Exx Equations and systems with constant coefficients [See also 35N05.]

35E05 Fundamental solutions

- Ahmedov, Sahmar Sharpening of the Malgrange theorem. (Russian. Tajiki summary) (81c:35021)
- Bratti, Giuliano A density theorem about some system. (81k:35027)
- Evgrafov, M. A. Estimation of the fundamental solution of an elliptic equation with constant coefficients. (Russian) (81d:35015)
- Kazarjan, G. G. The first boundary value problem for a general nonregular equation with constant coefficients. (Russian) (81k:35028)
- Nishiwada, Kimimasa Constant coefficient differential operators with slowly spreading solutions. (81j:35027)
- Explicit formulae for solutions of Schrödinger equations with quadratic Hamiltonians. (81m:35026)
- Zanghirati, Luisa Differential equations with constant coefficients having solutions in certain classes of generalized distribution with support in a half-space. (Italian. English summary) (81b:35013)

secondary classifications:

- Artino, Ralph A. See Barros-Neto, J., (81k:35031)
- Barros-Neto, J. (with Artino, Ralph A.) ★ Hypoelliptic boundary value problems. (81k:35031)
- Gay, Roger Divisions des fonctionnelles analytiques. Applications aux fonctions moyennes périodiques. (81h:32003)
- Hussein, Deeb A sufficient condition for w-hyperbolic convolution operators. (81m:46057)
- Modica, Luciano A Runge theorem for overdetermined systems with constant coefficients. (81c:35093)
- Persson, Jan The Cauchy problem at simply characteristic points and P -convexity. (81j:35002)

35E10 Convexity properties

secondary classifications:

- Andreotti, Aldo (with Nacinovich, Mauro) Convexité analytique. (81a:32017a)

(with Nacinovich, Mauro) Convexit  analytique. II. R sultats positifs.

(81a:32017b)

Berezstein, Carlos A. (with Taylor, B. A.) Mean-periodic functions. (81b:42014)

Nacinovich, Mauro See Andreotti, Aldo, (81a:32017a) and Andreotti, Aldo,

(81a:32017b)

Taylor, B. A. See Berezstein, Carlos A., (81b:42014)

35E15 Initial value problems

Miyake, Masatake A remark on the inverse theorem of Cauchy-Kowalevski. 81i:35026

Nishitani, Taisuo On the ε -well posedness for the Goursat problem with constant coefficients. 81k:35029

secondary classifications:

Berechet, Oprea Sur le probl me de Cauchy pour les op rateurs partiellement

multiquasielliptiques. (81b:35008)

Lancaster, Kirk E. (with Petersen, Bent E.) Systems of partial differential operators with fundamental solutions supported by a cone. (81d:35054)

Petersen, Bent E. See Lancaster, Kirk E., (81d:35054)

35E20 General theory

Hinze, Viorel Une nouvelle notion d'hypoellipticit . 81g:35014

Lien, Otto Projections and liftings of exact holomorphic forms. Applications to the Cauchy problem. 81e:35025

Pate, Thomas H. An application of the Neuberger iteration procedure to the constant coefficient linear partial differential equation. 81e:35026

35E99 None of the above, but in this section

Istov, P. A. Gevrey operator classes with respect to a hypoelliptic operator. (Russian) 81e:35027

Kahramanov, A. S. A mixed problem for partial differential equations with constant coefficients in the quarter of space. (Russian. Azerbaijani and English summaries) 81a:35016

Kusko, Akira Estimation of singular spectrum of boundary values for some semihyperbolic operators. 81i:35027

Napalkov, V. V. Systems of inhomogeneous infinite order partial differential equations. (Russian) 81b:35014

secondary classifications:

Cattaneo, Carlo Functions that are regularly discontinuous across a hypersurface: a general formula for geometric compatibility. (Italian) (81e:26009)

Chang, Wei-ta Global solvability of bi-invariant differential operators on solvable Lie groups. (81d:22011)

Schempp, Walter G-stable spaces of solutions of linear partial differential equations. (81c:58066)

35Fxx General first-order equations and systems

35F05 Linear equations and systems, general

Goldschmidt, Bernd Funktionentheoretische Eigenschaften verallgemeinerter analytischer Vektoren. 81e:35022

Hile, Gerald N. Function theory for a class of elliptic systems in the plane. 81e:35023

Vinogradov, V. S. Liouville theorems for an equation of generalized analytic functions. (Russian) 81e:35028

secondary classifications:

Malanov, V. I. Two-dimensional solutions of a not completely integrable Pfaff equation. (Russian) (81m:58011)

Mihailov, I. G. Compatibility conditions and manifolds of solutions to a generalized Cauchy-Riemann system with several variables. (Russian) (81e:32005)

35F10 Initial value problems for linear equations and systems

35F15 Boundary value problems for linear equations and systems

Fattorini, H. O. Weak and strong extensions of first-order differential operators in \mathbb{R}^n . 81e:35024

Gilbert, Robert P. (with Schneider, Manfred) On a class of boundary value problems for a composite system of first order differential equations. 81j:35028

Iliev, I. D. On the boundary problems in a half-space for a class of nonhypoelliptic operators. 81m:35027

Schneider, Manfred See Gilbert, Robert P., 81j:35028

secondary classifications:

Ibragimov, V. A. On a representation of solutions of the antiplane deformation problem of a physically nonlinear elastic medium. (81j:73021)

35F20 Nonlinear equations and systems, general

Rabin, G. I. (with Kljackin, V. I.) On the statistical theory of first-order partial differential equations. (Russian) 81j:35029

Kljackin, V. I. See Rabin, G. I., 81j:35029

Krukov, S. N. Nonlocal theory of the Hamilton-Jacobi equations. (Russian) 81k:35030

Wen, Guo Chun Existence theorems for continuously differentiable and homeomorphic solutions of first-order nonlinear elliptic systems. (Chinese. English summary) 81m:35028

secondary classifications:

Bratti, Giuliano A density theorem about some system. (81k:35027)

M nch, Dietrich Mayersche Transformation bei quasilinearen partiellen komplexen Differentialgleichungen. (81e:35006)

Samborski , S. M. The Cauchy problem for involutive systems of partial differential equations. (Russian) (81j:58009)

35F25 Initial value problems for nonlinear equations and systems

secondary classifications:

Brandi, Primo On the Cauchy problem for a nonlinear differential equation with first-order partial derivatives with functional argument. (Italian) (81k:35004)

Kamont, Z. On the Cauchy problem for system of first order partial differential-functional equations. (81f:35113)

Zaitov, B. A. Application of the contraction method to the solution of a mixed problem for a countable system of partial differential equations. (Russian) (81e:35029)

35F30 Boundary value problems for nonlinear equations and systems

Carbone, Luciano An existence criterion for the solutions of a system of differential equations. (Italian. English summary) 81i:35028

Zaitov, B. A. Application of the contraction method to the solution of a mixed problem for a countable system of partial differential equations. (Russian) 81e:35029

secondary classifications:

Bardos, Claude (with le Roux, A. Y.; N d lec, J.-C.) First order quasilinear equations with boundary conditions. (81b:35052)

Begehr, Heinrich Boundary value problems for composite type systems of first order partial differential equations. (81c:35009)

N d lec, J.-C. See Bardos, Claude; et al., (81b:35052)

le Roux, A. Y. See Bardos, Claude; et al., (81b:35052)

35F99 None of the above, but in this section

Le Hung Son Maximale Erweiterung des Definitionsgebietes von L sungen des n -dimensionalen Beltramischen Systems. 81f:35020

Tutschke, Wolfgang Komplexe Methoden bei nichtlinearen Differentialgleichungssystemen. 81i:35005

secondary classifications:

Bl ker, S. I. A variational problem. (Russian. Bulgarian and English summaries) (81m:58006)

Wick, J.  ber eine Verallgemeinerung des Begriffs "Charakteristik" bei partiellen Differentialgleichungen erster Ordnung. (English summary) (81a:35007)

35Gxx General higher-order equations and systems

35G05 Linear equations and systems, general

Berglez, Peter  ber eine partielle Differentialgleichung, die bei der Behandlung gewisser inhomogener Differentialgleichungen von Bedeutung ist. (English summary) 81m:35029

Cardoso, Fernando Existence and regularity of solutions of linear PDEs. 81f:35021

Gindikin, S. G. See Volevi , L. R., (See 80f:35002)

Him enko, B. N. See Kamynin, L. I., 81e:35025

Kamynin, L. I. (with Him enko, B. N.) On investigations of the isotropic strict extremum principle. (Russian) 81e:35025

Kostenko, V. G. (with Veselovska, O. O.) A general second-order linear partial differential equation on a plane, invariant with respect to a group of transformations with given trajectories. (Ukrainian. Russian summary) 81j:35030

Meyer, Sybille Zur Theorie der entarteten Gleichungen mit kleinem Parameter bei den h chsten Ableitungen. 81g:35015

Perelman, M. A. Well-posed boundary value problems with a distributed boundary condition. (Russian) 81h:35006

Radkovi , E. V. Analyticity and uniformization of solutions of a certain class of partial differential equations. (Russian) (See 80f:35002)

Veselovska, O. O. A general fourth-order linear partial differential equation on a plane, invariant with respect to a given group of transformations. (Ukrainian. Russian summary) 81j:35031

See also Kostenko, V. G., 81j:35030

Volevi , L. R. (with Gindikin, S. G.) The method of energy estimates in the Cauchy problem for differential operators with variable coefficients. (Russian) (See 80f:35002)

secondary classifications:

Berkovi , L. M. On the question of the factorization of linear second-order partial differential equations with two independent variables. (Russian) (81d:35004)

(Chen, Lo Kam) See Pham, Fr d ric, (81h:32015)

Kreyszig, Erwin Function-theoretic integral operator methods for partial differential equations. (81i:35023)

(Maisonobe, Philippe) See Pham, Fr d ric, (81h:32015)

Melrose, Richard B. (with Uhlmann, G. A.) Microlocal structure of involutive conical refraction. (81b:58044)

Pham, Fr d ric \star Singularit s des syst mes diff rentiels de Gauss-Manin. (French) [Singularities of Gauss-Manin differential systems] (81h:32015)

(Rombaldi, Jean-Etienne) See Pham, Fr d ric, (81h:32015)

Seelye, R. The index of differential operators in \mathbb{R}^n —Fedosov's formula. (81e:58049)

Uhlmann, G. A. See Melrose, Richard B., (81b:58044)

35G10 Initial value problems for linear equations and systems

- Borok, V. M. (with Žitomirskii, Ja. I.) The Cauchy problem for a certain class of loaded equations. (Russian) **81c:35026**
- Jamshidzadeh, A. I. On the question of the well-posedness of boundary value problems for systems of second-order partial differential equations. (Russian) **81c:35027**
- Paljutkin, V. G. Classes of uniqueness of the solution to the Cauchy problem for equations with variable coefficients. (Russian) **81c:35029**
- Žitomirskii, Ja. I. See Borok, V. M., **81c:35026**

35G15 Boundary value problems for linear equations and systems

- Berenstein, Carlos A. (with Lesmes, J.) The Cauchy problem for convolution operators. Uniqueness. **81a:35099**
- Boimatov, K. H. Separability theorems, weighted spaces and their application to boundary value problems. (Russian) **81c:35028**
- Dezin, A. A. Some general questions of the theory of boundary value problems. (Russian) (See **80f:35002**)
- Egorov, I. E. The first mixed problem for a hyperbolic-parabolic system. (Russian) **81f:35022**
- Gindikin, S. G. See Volevskii, L. R., **81b:35016**
- Hoang Khac Tuan. Some nonelliptic boundary value problems for a system of Bicadze equations. (Russian) **81b:35015**
- Ivanov, L. A. (with Kotko, L. A.; Krein, S. G.) Boundary value problems in variable domains. (Russian) (See **80f:35002**)
- Kotko, L. A. See Ivanov, L. A.; et al., (See **80f:35002**)
- Kuzinov, A. I. A boundary value problem for a class of third-order equations. (Russian) **81c:35029**
- Krein, S. G. See Ivanov, L. A.; et al., (See **80f:35002**)
- Langlais, Michel. Résultats d'existence de solutions fortes et de régularité pour des problèmes aux limites du second ordre dégénérés. (English summary) **81c:35030**
- Lesmes, J. See Berenstein, Carlos A., **81a:35099**
- Makarov, A. A. The criterion of correct solvability of a boundary value problem in a layer for a system of linear convolution equations in topological spaces. (Russian) **81c:35030**
- Šackil, V. P. A boundary value problem for singular symmetric systems of odd order. (Russian) **81m:35030**
- Sjöststrand, Johannes. Réflexion des singularités analytiques. **81c:35031**
- Propagation of analytic singularities for second order Dirichlet problems. **81c:35031a**
- Propagation of analytic singularities for second order Dirichlet problems. II. **81c:35031b**
- Volevskii, L. R. (with Gindikin, S. G.) Energy estimates in a mixed problem for $(2b+1)$ -hyperbolic equations. (Russian. English summary) **81b:35016**

secondary classifications:

- Kaneko, Akira. Estimation of singular spectrum of boundary values for some semihyperbolic operators. (Russian) **81c:35027**
- Sarason, Jukka. Über das Verhalten der Lösungen der Maxwellischen Randwertaufgabe in Gebieten mit Kegelspitzen. (English summary) **81g:35009**
- Wentson, Paul R. A well-posed boundary value problem for partial differential operators of principal type. (Russian) **81k:35170**

35G20 Nonlinear equations and systems, general

- Pate, Thomas H. Some improvements in Neuberger's iteration procedure for solving partial differential equations. **81c:35030**

secondary classifications:

- Čebotarevskii, B. D. A category of differential equations on manifolds. (Russian) (Russian) **81c:35071**
- Hildebrandt, Stefan (with Widman, Kjell-Ove) Variational inequalities for vector-valued functions. (Russian) **81a:35023**
- Kazarjan, G. G. The first boundary value problem for a general nonregular equation with constant coefficients. (Russian) **81k:35028**
- Orfanidis, Sophocles J. σ models of nonlinear evolution equations. (Russian) **81d:81016**
- Schechter, Eric. Stability conditions for nonlinear products and semigroups. (Russian) **81h:47061**
- Widman, Kjell-Ove. See Hildebrandt, Stefan, (Russian) **81a:35023**

35G25 Initial value problems for nonlinear equations and systems

- Ibetov, P. A. The Cauchy problem for equations whose coefficients have singularities. (Russian) **81j:35032**
- Medeiros, L. A. On a class of nonlinear PDE of mathematical physics. **81c:35032**
- Nasibov, Š. M. A nonlinear equation of Schrödinger type. (Russian) **81j:35033**
- Vencko, Jozef. On an application of the Tychonoff fixed point theorem to a Cauchy nonlinear problem. (Slovak and Russian summaries) **81j:35034**

secondary classifications:

- Kataoka, Kiyoomi. Micro-local theory of boundary value problems. I. Theory of mild hyperfunctions and Green's formula. (Russian) **81h:58039**

35G30 Boundary value problems for nonlinear equations and systems

- Calistru, N. On the existence and asymptotic behaviour of the solution of a boundary value problem. **81a:35017**
- Harin, S. N. See Kim, E. I.; et al., **81m:35031**
- Kim, E. I. (with Harin, S. N.; Krasnov, Ja. A.) Solution of a class of nonlinear boundary value problems. (Russian. Kazakh summary) **81m:35031**

Krasnov, Ja. A. See Kim, E. I.; et al., **81m:35031**

Kufner, Alois. Some modifications of Sobolev spaces and nonlinear boundary value problems. **81f:35023**

McKenna, P. J. (with Rauch, Jeffrey) Strongly nonlinear perturbations of nonnegative boundary value problems with kernel. **81m:35032**

Pohožaev, S. I. Questions of the nonexistence of solutions of nonlinear boundary value problems. (Russian) (See **80f:35002**)

Rauch, Jeffrey. See McKenna, P. J., **81m:35032**

secondary classifications:

Britov, N. A. Two-dimensional magnetohydrodynamic flows in strong magnetic field. (Russian) **81d:76100**

Didenko, V. P. A variational method for the solution of boundary value problems whose operator is not symmetric. (Russian) **81b:49003**

Mamedov, Ju. A. Some conditions for solvability of boundary value problems in the first quadrant. (Russian. Azerbaijani and English summaries) **81k:35025**

Pecher, Hartmut. On global regular solutions of third order partial differential equations. (Russian) **81c:35062**

35G99 None of the above, but in this section

Demidenko, G. V. On mixed boundary value problems for equations of Sobolev type with variable coefficients. (Russian) **81m:35033**

Shibata, Yoshihiro. Liouville type theorem for a system $(P(D), B_j(D), j=1, \dots, p)$ of differential operators with constant coefficients in a half space. **81g:35016**

secondary classifications:

Hogbe-Niend, Henri. Les espaces de Silva et les opérateurs différentiels. (Russian) **81j:47036**

Ibetov, P. A. Operator-Gevrey classes of functions. (Russian) **81b:35017**

Lipsey, Zs. Parametrization of nonsmooth boundaries for mixed type boundary value problems. (Russian) **81m:26017**

Roscalet, Marcel N. Algèbres avec radical, associées aux systèmes d'équations aux dérivées partielles, itérées. (Romanian summary) **81c:35019**

Ruderver, V. I. Zeros of the solutions of a linear analytic partial differential equation of arbitrary order. (Russian) **81b:35007**

35H05 Hypoelliptic equations and systems [See also 58Gxx.]

Aramaki, Junichi. On a class of pseudodifferential operators and hypoellipticity. (Russian) **81h:35007**

Artino, Ralph A. See Barros-Neto, J., **81k:35031**

Barros-Neto, J. Analytic hypoellipticity of operators of principal type. **81c:35031** (with Artino, Ralph A.) ★Hypoelliptic boundary value problems. **81k:35031**

Berechet, Oprea. Sur le problème de Cauchy pour les opérateurs partiellement multipliés elliptiques. **81h:35008**

Cioffi, Antonietta. The problem of Dirichlet type with respect to a class of elliptic-parabolic fourth-order operators that are hypoelliptic in the zone of degeneracy. (Italian. English summary) **81j:35035**

Debbaj, O. (with Souissi, A.) Problème à dérivée oblique associé à des opérateurs elliptiques singuliers. **81h:35033**

de Gosson, Maurice. Résultats microlocaux en hypoellipticité partielle à la frontière pour les opérateurs pseudo-différentiels de transmission. (English summary) **81g:35017**

Helffer, B. (with Nourrigat, Jean François) Hypoellipticité pour des groupes nilpotents de rang de nilpotence 3. **81d:35016**

(with Nourrigat, Jean François) Caractérisation des opérateurs hypoelliptiques homogènes invariants à gauche sur un groupe de Lie nilpotent gradué. **81h:35034**

(with Mitter, C.) Analyticité et itérés réduits d'un système de champs de vecteurs. **81m:35034**

Hörmander, Lars. On the subelliptic test estimates. **81f:35024**

Ibetov, P. A. Operator-Gevrey classes of functions. (Russian) **81b:35017**

Lancione, Ermanno. An observation on second-order hypoelliptic differential operators. (Italian. English summary) **81f:35025**

On second-order hypoelliptic operators with principal symbol of variable sign. (Italian. English summary) **81f:35026**

Maire, H.-M. Hypoelliptic overdetermined systems of partial differential equations. **81f:35027**

Mascarello Rodino, Maria. Certain special functions that arise in the study of hypoellipticity. (Italian. English summary) **81f:35035**

Mattera, Cl. See Helffer, B., **81m:35034**

Menikoff, A. Hypoelliptic operators with double characteristics. **81h:35036**

Métivier, Guy. Hypoellipticité analytique sur des groupes nilpotents de rang 2. **81h:35037**

Miller, Kenneth G. Parametries for a class of hypoelliptic operators. **81k:35032**

Morimoto, Yoshinori. On the hypoellipticity for infinitely degenerate semi-elliptic operators. **81d:35017**

Nourrigat, Jean François. See Helffer, B., **81d:35016** and Helffer, B., **81h:35034**

Parenti, Cesare (with Rodino, Luigi) Examples of hypoelliptic operators which are not microhypoelliptic. (Italian summary) **81f:35028**

Petzsch, Hans-Joachim. On the $\Lambda_\infty(\alpha)$ -nuclearity of hypoelliptic differential operators. **81m:35035**

Rodino, Luigi. Nonsolvability of a higher-order degenerate elliptic pseudodifferential equation. **81h:35038**

See also Parenti, Cesare, **81f:35028**

Saks, R. S. Weakly elliptic systems of differential equations and their properties. (Russian) **81h:35039**

Shafii-Mousavi, M. (with Zielezny, Z.) On hypoelliptic differential operators of constant strength. **81c:35032**

Souissi, A. See Debbaj, O., **81h:35033**

Tartakoff, David S. The local real analyticity of solutions to \square_λ and the δ -Neumann problem. **81k:35033**

Yamamoto, Kazuhiro Hypoelliptic second-order differential operators with complex coefficients. **81g:35018**
 Zielezny, Z. See Shafii-Mousavi, M., **81c:35032**

secondary classifications:

- Abdérmane, Mohamed Étude spectrale d'opérateurs hypoelliptiques à caractéristiques multiples. (English summary) **(81k:35120)**
 Asencott, R. Grandes déviations et applications. **(81m:58085)**
 Cardoso, Fernando Existence and regularity of solutions of linear PDEs. **(81f:35021)**
 Dehen, Danièle See Mallavin, Paul, **(81d:60077)**
 Derrié, M. Inégalités a priori et estimation sous-elliptique pour $\bar{\partial}$ dans des ouverts nonpseudoconvexes. **(81j:32023)**
 Geller, Daryl Necessary and sufficient conditions for local solvability on the Heisenberg group. **(81c:58057)**
 Local solvability and homogeneous distributions on the Heisenberg group. **(81i:35004)**
 Hanges, Nicholas Singular solutions for analytic pseudodifferential operators of principal type. **(81d:35083)**
 Helffer, B. Quelques exemples d'opérateurs pseudodifférentiels localement résolubles. **(81g:58035)**
 (with Nourrigat, Jean François) Opérateurs différentiels hypoelliptiques et groupes nilpotents. **(81c:58058)**
 Iketov, P. A. Gevrey operator classes with respect to a hypoelliptic operator. (Russian) **(81c:35027)**
 Iftimie, Viorel Une nouvelle notion d'hypoellipticité. **(81g:35014)**
 Iliev, I. D. On the boundary problems in a half-space for a class of nonhypoelliptic operators. **(81m:35027)**
 Kaplan, Aroldo Fundamental solutions for a class of hypoelliptic PDE generated by composition of quadratic forms. **(81c:58059)**
 Krantz, Steven G. Analysis on the Heisenberg group and estimates for functions in Hardy classes of several complex variables. **(81g:32007)**
 Lascar, Bernard Équations aux dérivées partielles en dimension infinie. **(81d:58021)**
 Lion, Gérard Hypoellipticité et résolubilité d'opérateurs différentiels sur des groupes nilpotents de rang 2. (English summary) **(81a:58045)**
 Mallavin, Paul ★ Géométrie différentielle stochastique. (French) [Stochastic differential geometry] **(81d:60077)**
 Stochastic calculus of variation and hypoelliptic operators. **(81f:60083)**
 Matsuzawa, T. On a class of stochastic partial differential equations. **(81m:60117)**
 Michel, Dominique See Mallavin, Paul, **(81d:60077)**
 Miller, Kenneth G. Hypoellipticity on the Heisenberg group. **(81c:58061)**
 Nourrigat, Jean François See Helffer, B., **(81c:58058)**
 Oganesjan, A. O. Local solvability and hypoellipticity for a class of second-order equations. (Russian. Armenian summary) **(81j:35006)**
 Petkov, Vesselin M. Microlocal forms for hyperbolic systems. **(81k:35168)**
 Rais, Mustapha Opérateurs différentiels bi-invariants (d'après M. Duflo). **(81d:22013)**
 Rothchild, Linda Preiss Local solvability of left invariant differential operators on the Heisenberg group. **(81i:22006)**
 Saks, R. S. Noetherian boundary value problems for some classes of weakly elliptic systems of differential equations. (Russian) **(81c:35057)**
 Samarin, N. A. Local nonsolvability of differential equations with weighted derivatives. (Russian) **(81i:35006)**

35Jxx Elliptic equations and systems [See also 58G05, 58G10.]

- 35J05 Laplace equation, reduced wave equation (Helmholtz), Poisson equation
- Akimov, A. B. The principle of limit absorption and partial conditions of radiation for the Helmholtz equation in an n -dimensional layer. (Russian. Azerbaijani and English summaries) **81i:35040**
 Bahč, V. M. Point source of oscillations near a concave mirror. II. (Russian. English summary) **81b:35018**
 Balli, Raffaele The Dirichlet problem in an angle for the reduced wave equation. (Italian. French summary) **81b:35019**
 Collins, C. B. All solutions to a nonlinear system of complex potential equations. **81d:35018**
 Complex potential equations, special relativity, and complexified Minkowski space-time. **81d:35019**
 Golsh, Jerry On a certain mixed boundary problem for iterated Helmholtz equation in the half-space. **81m:35036**
 Johnson, H. L. A mixed boundary value problem viewed as a type V problem. **81c:35032**
 Kersten, Heinrich See Müller, C., **81k:35037**
 Kipitnikova, N. Ja. Uniform asymptotic expansion of eigenfunctions of whispering gallery type. (Russian. English summary) **81a:35018**
 Kohler-Jobin, Marie-Thérèse Eine isoperimetrische Monotonie-Eigenschaft, die mehrere klassische Sätze enthält. **81a:35019**
 Kristensson, Gerhard A uniqueness theorem for Helmholtz' equation: penetrable media with an infinite interface. **81k:35034**
 Levy, Hans On conjugate solutions of certain partial differential equations. **81j:35036**
 McCamy, Richard C. Variational procedures for a class of exterior interface problems. **81c:35035**
 Melnikova, I. V. The connection between the Dirichlet and Cauchy problems. (Russian) **81f:35029**
 Modica, Luciano (with Mortola, Stefano) Some entire solutions in the plane of nonlinear Poisson equations. (Italian summary) **81k:35036**
 Mortola, Stefano See Modica, Luciano, **81k:35036**
 Müller, C. (with Kersten, Heinrich) Zwei Klassen vollständiger Funktionensysteme zur Behandlung der Randwertaufgaben der Schwingungsgleichung $\Delta U + k^2 U = 0$.

(English summary) **81k:35037**

- Narkun, Z. M. The summation theorem for "interior" fundamental solutions of Laplace equations in elliptic coordinates. (Russian. English summary) **81f:35030**
 Romanov, A. V. The Neumann method of boundary value problems for the Helmholtz equation. (Russian) **81k:35038**
 Scott, Edward J. Green's functions in an octant for mixed problems relative to the Laplace equation. I. **81m:35037**
 Wachnig, Adam On the Dirichlet problem for certain angular domain. **81b:35009**
 Weston, V. H. Inverse problem for the reduced wave equation with fixed incident field. **81i:35041**
 Wickel, W. Ein Integralgleichungssystem zur Neumannschen Randwertaufgabe für eine Gleichung 4. Ordnung. **81g:35019**
 Zaplo, Ludwika On certain properties of the volume Green potential for the iterated Helmholtz equation and for the octant E_3^+ . **81d:35020**

secondary classifications:

- Barnes, C. J. Interactions between particles of arbitrary shape. I. Uncharged particles. **(81a:78021)**
 Brelot, Marcel Équation de Weinstein et potentiels de Marcel Riesz. **(81a:31010)**
 Čiřev, A. V. See Svelnikov, A. G.; et al., **(81c:35113)**
 Corduneanu, Constantin Ordinary differential equations approximating partial differential equations. **(81m:65183)**
 Dassios, George Equipartition of energy for Maxwell's equations. **(81f:78004)**
 Eremin, Ju. A. See Svelnikov, A. G.; et al., **(81c:35113)**
 Graffi, Dario On the uniqueness theorem for the sinusoidal electromagnetic field in an unbounded domain. (Italian) **(81j:78004)**
 Heins, Albert E. The fundamental solution for the axially symmetric wave equation. **(81i:35009a)**
 The fundamental solution for the axially symmetric wave equation. II. **(81i:35009b)**
 Hersch, Joseph On the torsion function, Green's function and conformal radius: an isoperimetric inequality of Pólya and Szegő, some extensions and applications. **(81k:49034)**
 Höpner, Wolfgang Zum Problem mit schiefer Ableitung. **(81j:58073)**
 Hudson, John Arthur ★ The excitation and propagation of elastic waves. **(81h:73001)**
 Jerison, David S. (with Kenig, Carlos E.) An identity with applications to harmonic measure. **(81f:31009)**
 Kalnins, E. G. (with Miller, Willard, Jr.) Nonorthogonal separable coordinate systems for the flat 4-space Helmholtz equation. **(81c:58065)**
 Kawamura, Michihiko A remark on inhomogeneity of Picard principle. **(81g:31005)**
 Kenig, Carlos E. See Jerison, David S., **(81f:31009)**
 Kersten, Heinrich Grenz- und Sprungrelationen für Potentiale mit quadratsummierbarer Flächenbelegung. **(81i:31015)**
 Kouzov, D. P. An energy principle of uniqueness for acoustic boundary value problems. (Russian. English summary) **(81c:76037)**
 Lewy, Hans An inversion of the obstacle problem and its explicit solution. **(81d:35081)**
 Mei, Chiang C. (with Tuck, E. O.) Forward scattering by long thin bodies. **(81m:76006)**
 Miller, Robert F. Singularities of solutions to exterior analytic boundary value problems for the Helmholtz equation in three independent variables. II. The axisymmetric boundary. **(81m:35010)**
 Miller, Willard, Jr. See Kalnins, E. G., **(81c:58065)**
 Ozawa, Shin Perturbation of domains and Green kernels of heat equations. **(81g:49036a)**
 Perturbation of domains and Green kernels of heat equations. II. **(81g:49036b)**
 Perturbation of domains and Green kernels of heat equations. III. **(81g:49036c)**
 Salčev, A. I. Consideration of some corrections to parabolic approximation of quasi-optics in a statistical description of waves propagating in randomly inhomogeneous media. (Russian) **(81d:78017)**
 Svelnikov, A. G. (with Eremin, Ju. A.; Čiřev, A. V.) Investigation of the uniqueness of the solution of an inverse problem of diffraction theory. (Russian) **(81c:35113)**
 Taylor, Michael E. Estimate on the fundamental frequency of a drum. **(81c:35097)**
 Tuck, E. O. See Mei, Chiang C., **(81m:76006)**
 Wolfe, Peter An integral operator connected with the Helmholtz equation. **(81d:45001)**

35J10 Schrödinger operator [See also 47A40.]

- Everitt, W. N. (with Gierzt, M.) Inequalities and separation for Schrödinger type operators in $L_2(\mathbb{R}^n)$. **81g:35020**
 Gierzt, M. See Everitt, W. N., **81g:35020**
 Isozaki, Hiroshi Eikonal equations and spectral representations for long-range Schrödinger Hamiltonians. **81i:35042**
 Korotjaev, E. L. On the spectrum of the monodromy operator of the Schrödinger operator with a potential which is periodic with respect to time. (Russian) **81k:35039**
 Makai, Endre On the Schrödinger equation of the three-body problem. I, II. **81i:35043**
 Morgan, John D., III Schrödinger operators whose potentials have separated singularities. **81i:35044**
 Noussair, Ezzat S. (with Swanson, Charles A.) Semilinear Schrödinger equations in exterior domains. **81k:35045**
 Orońko, Ju. B. Selfadjointness of the minimal Schrödinger operator with potential belonging to $L_{1,loc}$. **81b:35020**
 Perel'muter, M. A. (with Semenov, Ju. A.) Selfadjointness of elliptic operators with a finite and with an infinite number of variables. (Russian) **81i:35046**
 Semenov, Ju. A. See Perel'muter, M. A., **81i:35046**
 Simon, B. Brownian motion, L^p properties of Schrödinger operators and the localization of binding. **81c:58033**
 Strauss, Walter Alexander The nonlinear Schrödinger equation. **81i:35047**
 Swanson, Charles A. See Noussair, Ezzat S., **81i:35045**

secondary classifications:

- Brézis, Haim** Quelques propriétés de l'opérateur de Schrödinger $-\Delta + V$. (81a:35073)
On the Schrödinger operator with singular complex potentials. (81g:47054)
"Localized" selfadjointness of Schrödinger operators. (81a:35074)
- Burt, Philip B.** Energy bands in nonlinear Schrödinger equations. (81i:81010)
- Cartier, Pierre** Théorie de la diffusion pour l'équation de Schrödinger. (81e:35100)
- Čadež, I. D.** Stability of regularizations of the many-particle Schrödinger operator with singular repulsive two-body potential. (Russian. English summary) (81f:81016)
- Evans, W. D.** On the J -self-adjointness of Schrödinger operators with a singular complex potential. (81e:35101)
- Fujiwara, Dainuke** A construction of the fundamental solution for the Schrödinger equation. (81i:35145)
- Harčenko, A. P.** See Korobčuk, I. V., (81i:81017)
- Hill, Robert Nyden** An exactly solvable one-dimensional three-body problem with hard cores. (81e:81028)
- Hoffmann-Ostenhof, M.** (with Hoffmann-Ostenhof, Thomas; Simon, B.) Brownian motion and a consequence of Harnack's inequality: nodes of quantum wave functions. (81g:81019)
- Hoffmann-Ostenhof, Thomas** A comparison theorem for differential inequalities with applications in quantum mechanics. (81c:81008)
See also Hoffmann-Ostenhof, M.; et al., (81g:81019)
- Kitada, Hitoshi** On a construction of the fundamental solution for Schrödinger equations. (81g:81026)
- Korobčuk, I. V.** (with Harčenko, A. P.) Investigation of the stationary Schrödinger equation by the qualitative methods of differential equations. (Russian) (81i:81017)
- Moses, H. E.** A kernel of Gel'fand-Levitan type for the three-dimensional Schrödinger equation. (81a:81023)
- Moshinsky, M.** (with Winternitz, P.) Quadratic Hamiltonians in phase space and their eigenstates. (81f:81014)
- Noussair, Ezzat S.** (with Swanson, Charles A.) Positive solutions of quasilinear elliptic equations in exterior domains. (81j:35007)
- Pecher, Hartmut** (with von Wahl, Wolf) Time dependent nonlinear Schrödinger equations. (81k:35106)
- Potapov, V. S.** Convergence of the Born series in the three-particle scattering problem at high energies. (Russian. English summary) (81k:81116)
- Schenk, Dieter** Eine Reihendarstellung der Spektralfunktion dreidimensionaler Schrödinger-Operatoren mit flachem Potential. (81m:35103)
- Simon, B.** See Hoffmann-Ostenhof, M.; et al., (81g:81019)
- Širokov, Ju. M.** Strongly singular potentials in three-dimensional quantum mechanics. (Russian. English summary) (81d:81019)
- Swanson, Charles A.** See Noussair, Ezzat S., (81j:35007)
- Voros, A.** Symbol calculus by symbolic computation and semiclassical expansions. (81i:81025)
- von Wahl, Wolf** See Pecher, Hartmut, (81k:35106)
- Weldmann, Joachim** Continuity of the eigenvalues of selfadjoint operators with respect to the strong operator topology. (81j:47019)
Monotone continuity of the spectral resolution and the eigenvalues. (81j:47018)
- Winternitz, P.** See Moshinsky, M., (81f:81014)

35J15 Second-order equations, general

- Alyev, A. S.** Some theorems of Phragmén-Lindelöf type for the solutions of second order linear elliptic equations. (Russian) (See 80d:00021)
- Elschner, Johannes** (with Lorenz, Michael) On the normal solvability of the operator $\Delta^2 + \mu(\partial/\partial r)r + \lambda$. (81m:35038)
- Janiuhanskas, A. I.** A three-dimensional analogue of the Beltrami system. (Russian) (81i:35048)
- Krtešev, D. N.** The geometry of the solutions of elliptic equations. (Russian) (81k:35040)
- Lahturov, S. S.** See Landis, E. M., 81d:35021
- Landis, E. M.** Hörmander's inequality for elliptic equations with nonsmooth coefficients. (Russian. English summary) (81e:35033)
(with Lahturov, S. S.) Behavior at infinity of solutions to elliptic equations that are periodic in all variables but one. (Russian) (81d:35021)
- Lions, Jacques-Louis** Asymptotic expansions in perforated media with a periodic structure. (81f:35031)
- Lorenz, Michael** See Elschner, Johannes, 81m:35038
- Mikhlin, V. M.** Asymptotic properties of subsolutions of quasilinear equations of elliptic type and mappings with bounded distortion. (Russian) (81j:35037)
- Norrmann, A. A.** Behavior of solutions on the boundary of second-order uniformly elliptic equations. (Russian) (See 80d:00021)
- Saak, E. M.** Stability of the jump problem for a holomorphic vector. (Russian) (81k:35041)
- Suleimanov, N. M.** Behavior of the solutions of second-order nonlinear elliptic equations with a linear principal part. (Russian) (81a:35022)
- Unell, Philip Myles** Selfadjointness of certain second order differential operators on Riemannian manifolds. (81g:35021)
- Wanby, Göran** A generalization of the Phragmén-Lindelöf principle for elliptic differential equations. (81b:35021)

secondary classifications:

- Azzam, Ali** (with Kreyszig, Erwin) On a method for constructing Bergman kernels. (81k:35024)
- Fleishman, Bernard A.** (with Mahar, Thomas J.) A minimum principle for superharmonic functions subject to interface conditions. (81b:31002)
- Katrakova, A. A.** Approximation of the solutions to some singular elliptic boundary value problems. (Russian) (81k:65122)
- Kozlov, S. M.** Averaging of differential operators with almost periodic rapidly oscillating coefficients. (Russian) (81m:35017)
- Kreyszig, Erwin** See Azzam, Ali, (81k:35024)

- Leh, R.** Exterior boundary-value problems in mathematical physics. (81d:78016)
- Mahar, Thomas J.** See Fleishman, Bernard A., (81b:31002)
- Mandras, Franco** On the regularity of the solutions of a class of degenerate nonvariational elliptic equations. (Italian. English summary) (81k:35068)
- Medvedev, V. A.** Interpolational expansions of the solutions of second-order elliptic differential equations. (Russian) (81b:65006)
- Modica, Luciano** (with Mortola, Stefano) Construction of a singular elliptic-harmonic measure. (81m:31001)
- Mortola, Stefano** See Modica, Luciano, (81m:31001)
- Taira, Kazuaki** A strong maximum principle for degenerate elliptic operators. (81b:35039)
- Tutschke, Wolfgang** Komplexe Methoden bei nichtlinearen Differentialgleichungssystemen. (81k:35005)
- Wong, Pui Kei** Sturmian theory of second-order elliptic differential equations and inequalities. (81d:35005)

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- Bandle, Catherine** Error estimates for some nonlinear Dirichlet problems. (81m:35009)
- Barashkov, A. S.** Optimization of a mathematical description of complex systems. (Russian) (81k:35049)
- Broll, Marco** A regularity result for the solution to a quasivariational inequality with variable coefficients. (Italian summary) (81k:35042)
- Brézis, Haim** (with Caffarelli, Luis A.; Friedman, Avner) Reinforcement problems for elliptic equations and variational inequalities. (81m:35040)
- Caffarelli, Luis A.** See Brézis, Haim; et al., 81m:35040
- Friedman, Avner** See Brézis, Haim; et al., 81m:35040
- Granlund, Seppo** Harnack's inequality in the borderline case. (81m:35041)
- Himčenko, B. N.** See Kamynin, L. I., 81c:35034
- Ivanov, A. V.** The first boundary value problem for quasilinear (A, \tilde{B}) -elliptic equations. (Russian. English summary) (81c:35034)
- Jensen, Robert** Boundary regularity for variational inequalities. (81k:35043)
- Kamenškil, G. A.** (with Myškis, A. D.; Skubačevskii, A. L.) On the minimum of a quadratic functional and on linear boundary value problems of elliptic type with deviating arguments. (Russian) (81k:35044)
- Kamynin, L. I.** (with Himčenko, B. N.) On investigations of the maximum principle. (Russian) (81c:35034)
- Kikuchi, Norio** (with Mitsuoka, Noriko) On nonlinear Euler equations. (81k:35045)
- Lions, Pierre-Louis** Some problems related to the Bellman-Dirichlet equation for two operators. (81k:35046)
- Markusiev, L. A.** The generalized Robin problem and a variational method of solving it. (Russian) (81k:35047)
- Mitsuoka, Noriko** See Kikuchi, Norio, 81k:35045
- Moet, Henry Johan Karel** Sur la convergence de la frontière libre dans un problème de perturbations singulières d'une inéquation variationnelle elliptique. (English summary) (81k:35022)
- Moszyński, Krzysztof** Concerning some version of the Lax-Milgram lemma in normed spaces. (81k:35050)
- Myškis, A. D.** See Kamenškil, G. A.; et al., 81k:35044
- Osmolovskii, V. G.** Korn's inequality for the geometrically nonlinear elasticity theory. (Russian) (81g:35023)
- Skubačevskii, A. L.** See Kamenškil, G. A.; et al., 81k:35044
- Stuart, C. A.** (with Toland, John F.) A property of solutions of elliptic differential equations with discontinuous nonlinearities. (81k:35051)
- Toland, John F.** See Stuart, C. A., (81k:35051)
- Zidkov, G. V.** The solvability of a variational problem for a certain class of functions in an axially symmetric domain. (Russian) (81b:35022)

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- Ball, J. M.** Strict convexity, strong ellipticity, and regularity in the calculus of variations. (81d:35014)
- Da Silva, Adel** Hamiltonian of the massive Yang-Mills theory. (81i:81048)
- Goebel, Manfred** Optimal control of coefficients in linear elliptic equations. II. Necessary optimality conditions. (81d:49015)
- Himčenko, B. N.** See Kamynin, L. I., (81c:35025)
- Hinlich, Rolf** (with Naumann, Joachim) On general boundary value problems and duality in linear elasticity. II. (Czech and Russian summaries) (81g:73004)
- Kamenškil, G. A.** (with Myškis, A. D.; Skubačevskii, A. L.) The minimum of a quadratic functional and linear boundary value problems of elliptic type with deviating arguments. (Russian) (81a:35094)
- Kamynin, L. I.** (with Himčenko, B. N.) On investigations of the isotropic strict extremum principle. (Russian) (81c:35025)
- Kufner, Alois** Some modifications of Sobolev spaces and nonlinear boundary value problems. (81f:35023)
- Kuz'menko, Ju. T.** (with Molčanov, S. A.) Counterexamples to theorems of Liouville type. (Russian. English summary) (81e:58063)
- Lemrabet, K.** An interface problem in a domain of \mathbb{R}^2 . (81c:35036)
- Maceri, Aldo** See Toscano, Raffaele, (See 81j:66009)
- Markusiev, L. A.** A generalized Robin problem. (Russian) (81d:31010)
- Molčanov, S. A.** See Kuz'menko, Ju. T., (81c:58063)
- Mukoed, A. P.** A variant of the refined theory of shells. (Russian) (81e:73067)
- Myškis, A. D.** See Kamenškil, G. A.; et al., (81a:35094)
- Naumann, Joachim** See Hinlich, Rolf, (81g:73004)
- Nečas, Jindřich** On the regularity of weak solutions to variational equations and inequalities for nonlinear second order elliptic systems. (81f:35038)
- Ramm, A. G.** A variational principle for resonances. (81i:49033)
- Sburlan, S. F.** Constraint strongly monotone operators. (81h:73013)
- Skubačevskii, A. L.** See Kamenškil, G. A.; et al., (81a:35094)
- Stuart, C. A.** (with Toland, John F.) A variational method for boundary value problems with discontinuous nonlinearities. (81k:35055)

Toland, John F. See Stuart, C. A., 81i:35055

Toscano, Raffaele (with Maceri, Aldo) Preliminary results on the elastic stability of beams under unilateral constraints. (See 81j:68009)

Valent, Tullio Existence and uniqueness theorems in finite elastostatics. (Italian. English summary) (81c:73032)

Yamada, Naoki Estimates on the support of solutions of elliptic variational inequalities in bounded domains. II. (81i:49007)

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Ade, Hans Anwendung des Schauderschen Fixpunktsatzes auf elliptische Randwertaufgaben. (English summary) 81k:35048

Aliev, M. I. (with Vavrečev, I. I.) Solvability of the Dirichlet problem for two-dimensional quasilinear elliptic equations. (Russian) 81k:35049

Alvino, Angelo Majorisation and regularisation formulas for solutions of second-order elliptic equations in a bounded case. (Italian. English summary) 81j:35038

Arhipova, A. A. The smoothness of the solution to the Dirichlet problem for some nonuniformly elliptic equations. (Russian) 81k:35050

Azzam, Ali Behaviour of solutions of Dirichlet problem for elliptic equations at a corner. 81d:35022

On the Dirichlet problem for elliptic equations. 81h:35010

On differentiability properties of solutions of elliptic differential equations. 81j:35039

Bala, V. V. Estimates of derivatives of the solution to linear equations of elliptic and parabolic type with discontinuous coefficients. (Russian) 81a:35020

Borisko, N. A. The Dirichlet problem for an equation of elliptic type. (Russian) 81h:35011

Campi, Stefano On the exterior Dirichlet problem for linear elliptic equations in the plane. 81a:35024

Chacón, Maurizio Sufficient conditions for the Hölderity at the boundary of the solutions of elliptic equations of variational type. (Italian. English summary) 81j:35040a

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Clăruș-Socolescu, Rodica On the existence of classical solutions of exterior semilinear elliptic boundary value problems with application to plane fluid flows. 81k:35051

Colton, David The exterior Dirichlet problem for $\Delta u - u + \Delta u = 0$. 81g:35024

Díaz, N. Noncoincidence of the condition of regularity of boundary points for second-order linear elliptic equations with the analogous condition for the Laplace equation. (Russian) 81f:35033

Eida, J. P. Espaces de Hölder et estimées de Schauder pour des opérateurs elliptiques. (English summary) 81f:35034

Fichera, Gaetano The problem of the completeness of systems of particular solutions of partial differential equations. 81d:35023

de Figueiredo, Djairo Guedes (with Ni, Wei Ming) Perturbations of second order linear elliptic problems by nonlinearities without Landesman-Lazer condition. 81k:35052

Göhde, Dietrich Halbsinguläre gestörte elliptische Probleme zweiter Ordnung. 81c:35035

Holz, Erhard Über die analytische Abhängigkeit der Lösungen eines linearen elliptischen Randwertproblems von Parametern. 81f:35035

Hildebrandt, Stefan (with Widman, Kjell-Ove) Sätze vom Liouvilleschen Typ für quasilineare elliptische Gleichungen und Systeme. 81f:35036

Hsiao, George C. (with Roach, G. F.) On the relationship between boundary value problems. 81b:35023

Iragolov, A. I. Behavior in the neighborhood of boundary points and theorems on removable sets for second-order elliptic equations with continuous coefficients. (Russian) 81g:35025

Iosifjan, G. A. See Oleinik, O. A., 81m:35043

Ivanov, A. V. (with Mkrtčjan, P. Z.) Solvability of the first boundary value problem for some classes of second-order degenerate quasilinear elliptic equations. (Russian) 81h:35012

Janićkanas, A. I. Constructive methods for investigating the oblique derivative problem. (Russian) 81d:35024

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Kajikava, G. A. The Dirichlet problem for some degenerate elliptic equations with the boundary function from L^p . (Russian) 81d:35025

Lakshmiv, S. S. Asymptotic behavior of the solutions of the second boundary value problem in unbounded domains. (Russian) 81m:35042

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Lomtevskaja, T. V. On the singularities of solutions of the Dirichlet problem for an elliptic equation with discontinuous coefficients. (Russian) 81h:35013

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Manselli, Paolo A nonexistence and nonuniqueness example in Sobolev spaces for elliptic equations in nondivergence form. (Italian summary) 81g:35026

McIntosh, Alan Second-order properly elliptic boundary value problems on irregular plane domains. 81a:35026

Michael, J. H. Elliptic partial differential equations on convex sets. 81i:35052

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Müller, Andreas H. Existenz schwacher Lösungen des Frankl-Morawetz-Problems im \mathbb{R}^2 . 81j:35041

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Parasjuk, L. S. (with Parasjuk, E. M.) The fundamental boundary value problems in the half-plane for certain elliptic equations with a parameter, degenerate on the boundary. (Ukrainian. Russian summary) 81h:35014

Pham The Lai Problème de Dirichlet dans un cône avec paramètre spectral pour une classe d'espaces de Sobolev à poids. 81d:35026

Prohorova, A. V. The Noether property of certain Šilov-Lopatinskiĭ boundary value problems. (Russian) 81a:35027

Pryde, A. J. Second order elliptic boundary value problems in spaces with homogeneous norms. 81f:35037

Radčevič, E. V. An approach to the solution of filtration theory problems. (Russian) 81c:35035

Roach, G. F. See Hsiao, George C., 81b:35023

Saak, E. M. Solvability of a general boundary value problem for the Laplace equation. (Russian) 81c:35037

Sahsev, Š. The solvability of a mixed problem for an equation of elliptic type. (Russian. Kazakh summary) 81i:35054

Samsouja, Z. V. The Green function for a class of second-order elliptic differential equations. (Russian) 81c:35038

Schaefer, Philip W. Some maximum principles for nonlinear elliptic boundary-value problems. 81c:35036

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Stuart, C. A. (with Toland, John F.) A variational method for boundary value problems with discontinuous nonlinearities. 81i:35055

Toland, John F. See Stuart, C. A., 81i:35055

Toromanjan, N. E. Investigation of boundary value problems and properties of solutions for some systems of differential equations with two independent variables. (Russian) 81h:35015

Triebel, Hans On the Dirichlet problem for regular elliptic differential operators of second order in the Besov spaces $B_{p,q}^s$. The case $0 < p < \infty$. 81c:35037

Vavrečev, I. I. See Aliev, M. I., 81k:35049

Weder, Ricardo Second order operators in the uniform norm. 81c:35038

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Witsch, K. J. Ein schiefes Randwertproblem zu einer elliptischen Differentialgleichung zweiter Ordnung mit einer expliziten L_2 -Abschätzung für die zweiten Ableitungen der Lösung. (English summary) 81h:35056

Zhang, Gong Qing The obstacle problem and partial differential equations with discontinuous nonlinearities. 81f:35032

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Ancones, Alano Théorème de Fatou et frontière de Martin pour une classe d'opérateurs elliptiques dans un demi-espace. (English summary) (81i:31021)

Boersma, Johannes See Lee, Shung Wu; et al., (81d:78009)

Castro, Alfonso (with Lazer, Alan C.) Critical point theory and the number of solutions of a nonlinear Dirichlet problem. (81d:58022)

Chandrasekhara, B. C. (with Rudraiah, N.) MHD flow through a channel of varying gap. (81f:76035)

Charrier, Pierre Continuité de la solution d'un problème unilatéral elliptique et application. (English summary) (81c:49006)

Colton, David (with Kleinman, Ralph) The direct and inverse scattering problems for an arbitrary cylinder: Dirichlet boundary conditions. (81g:78023)

Deschamps, Georges A. See Lee, Shung Wu; et al., (81d:78009)

Diaz, J. B. (with Ram, R. B.) Uniqueness of Dirichlet, Neumann and mixed boundary value problems for Laplace's and Poisson's equations for a rectangle. (81g:31003)

Dziuk, Gerhard Das Verhalten von Flächen beschränkter mittlerer Krümmung an C^1 -Randkurven. (81k:53001)

Fichera, Gaetano ★ Numerical and quantitative analysis. (81a:65005)

(Graffi, Sandro) See Fichera, Gaetano, (81a:65005)

Grossmann, U. Existence and uniqueness of solutions of quasilinear transmission problems of both elliptic and pseudoparabolic type simulating oxygen transport in capillary and tissue. (81c:92006)

Hayes, M. The Dirichlet problem for elastic cubic crystals. (81e:73013)

Hess, Peter (with Kato, Tosio) On some linear and nonlinear eigenvalue problems with an indefinite weight function. (81m:35102)

Ilin, A. M. The method of matched asymptotic expansions in the study of some elliptic boundary value problems. (Russian) (See 80f:35002)

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Ilsink, A. S. Direct investigation methods for the exterior boundary value problems of elliptic equations. (81m:65185)

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Ivanov, E. A. A boundary value problem of the theory of wave diffraction, solvable by the paired equation method. (Russian) (81h:78050)

Janovskii, L. P. A note on the normal solvability of elliptic variational inequalities. (Russian) (81g:47068)

Kapandze, D. V. Boundary values of solutions of a second-order linear elliptic equation. (Russian. Georgian and English summaries) (81h:35036)

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Kleinman, Ralph See Colton, David, (81g:78023)

Law, Chak Lam See Lee, Shung Wu; et al., (81d:78009)

Lazer, Alan C. See Castro, Alfonso, (81d:58022)

Lee, Shung Wu (with Boersma, Johannes; Law, Chak Lam; Deschamps, Georges A.) Singularity in Green's function and its numerical evaluation. (81d:78009)

Li, Ming Zhang Generalized Riemann-Hilbert boundary value problem for a system of second order linear elliptic equations. (81f:35100)

Majewski, Adam (with Felner, Eugeniusz) Anisotropic dielectric rod with partially metallized surfaces. (Polish. Russian and English summaries) (81j:73077)

- Calculation of the electric field distribution around a system of bodies in an electric field. (Polish. Russian and English summaries) (81j:78011)
- Michel, Philippe Necessary conditions for optimality of elliptic systems with positivity constraints on the state. (81c:49012)
- Mikhailov, V. P. The boundary values of solutions of elliptic equations. (Russian) (See 80f:35002)
- Millar, Robert F. The analytic continuation of solutions to elliptic boundary value problems in two independent variables. (81j:35025)
- Pelzner, Eugeniusz See Majewski, Adam, (81j:73077)
- Radiashov, N. Analogues of the Poisson formula for a class of second-order equations with two and three singular planes. (Russian) (81c:35015)
- Ram, R. B. See Diaz, J. B., (81g:31003)
- Rudraiah, N. See Chandrasekhara, B. C., (81i:76035)
- Schmidt, Margot Über stetige Funktionen, die sich als Potential elliptischer Gleichungen 2. Ordnung darstellen lassen. (81g:31006)
- Senickii, Ju. E. A generalized method of finite integral transformations in problems of the dynamic theory of elasticity. (Russian) (81j:73034)
- T'ral, Lung I Existence of solutions of nonlinear elliptic systems. (81c:35052)

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- Cho, Suk Ching On the coefficients of estimation of the solutions by the norm of continuous functions. (Korean. English summary) 81j:35043
- Dybov, P. T. Solvability of a differential equation of elliptic type on the whole plane. (Russian) 81c:35039
- Filatov, P. S. Uniform estimates of solutions for a class of quasielliptic equations at infinity. (Russian) 81k:35053
- Goyal, Vinod B. (with Schaefer, Philip W.) Liouville theorems for a class of fourth-order elliptic equations. 81g:35027
- Nadler, N. S. A Phragmén-Lindelöf theorem for a class of higher-order elliptic equations. (Russian) 81g:35028
- Nazarov, S. A. The method of M. I. Višik and L. A. Ljusternik in domains with conic points. (Russian) 81g:35029
- Schaefer, Philip W. See Goyal, Vinod B., 81g:35027

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- Allegretto, Walter Finiteness of lower spectra of a class of higher order elliptic operators. (81d:35063)
- Kučment, P. A. See Zelenko, L. B., (81a:35008)
- Mumm, Harald Ein Vergleich zweier Nullmengensysteme bei der polyharmonischen Gleichung. (81d:31014)
- Zelenko, L. B. (with Kučment, P. A.) The Floquet representation of exponentially growing solutions of elliptic equations with periodic coefficients. (Russian) (81a:35008)

35J35 Higher-order equations, variational methods

- Landes, Rüdiger (with Mustonen, Vesa) On pseudomonotone operators and nonlinear noncoercive variational problems on unbounded domains. 81c:35057
- Mustonen, Vesa See Landes, Rüdiger, 81c:35057
- Nečas, Jindřich On the regularity of weak solutions to variational equations and inequalities for nonlinear second order elliptic systems. 81f:35038
- Papathéodorou, Theodore S. Approximation of solutions to nonlinear variational time dependent problems. 81b:35024
- Torelli, Alessandro Some regularity results for a family of variational inequalities. 81d:35027

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- Ahmedov, Z. A. See Atahodjaev, M. A., (81i:31006)
- Atahodjaev, M. A. (with Ahmedov, Z. A.) A problem for the biharmonic equation. (Russian) (81i:31008)
- Beyer, Klaus Zur ersten Randwertaufgabe in der nichtlinearen Elastizitätstheorie. (81c:73010)
- Biroli, Marco A Hölder-continuity result for the solution of certain quasivariational inequalities. (Italian. English summary) (81i:49002)
- An estimate on convergence of approximation by iterations of a solution to a quasivariational inequality and some consequences on continuous dependence and G-convergence. (Italian summary) (81f:49026)
- Vasilaukas, Z. The convergence in W_2^2 of the approximate variational-difference solution of the Signorini problem. (Russian. Lithuanian and English summaries) (81g:49019)
- Zeidler, Eberhard The Ljusternik-Schnirelman theory for indefinite and not necessarily odd nonlinear operators and its applications. (81h:58025b)

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- Agapova, T. M. Some properties of generalized solutions of the Neumann problem for higher-order quasilinear elliptic equations. (Russian) 81a:35028
- Amick, Charles J. On the Dirichlet problem for infinite cylinders and equations with transversely varying coefficients. 81g:35030
- Bagirov, L. A. (with Kondrat'ev, V. A.) A class of elliptic equations in R^n . (Russian) 81c:35040
- Bove, Antonio (with Franchi, Bruno; Obrecht, Enrico) An elliptic boundary value problem with unbounded coefficients in a half space. (Italian summary) 81m:35044
- Cordes, H. O. (with Erkip, Albert K.) The n th order elliptic boundary problem for noncompact boundaries. 81b:35016
- Erkip, Albert K. The elliptic boundary problem on the half space. 81m:35045
- See also Cordes, H. O., 81b:35016
- Ékin, Michael Elliptic overdetermined system of two equations in a smooth

- three-dimensional domain. 81i:35058
- Filar, M. On a certain boundary problem for the equation $\Delta^2 u - C^2 u = f(X)$. 81m:35046
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- Salsa, Sandro See Della Mattia Maderna, Carla, **81b:35019**
- Schianchi, Rosanna See Giachetti, Daniela; et al., **81b:35033**
- Seldman, Thomas I. Steady-state solutions of diffusion-reaction systems with electrostatic convection. **81i:35075**
- Singkofer, Karen See Nagle, R. Kent, **81c:35074**
- Šiklov, A. E. Classical solvability of the Dirichlet problem for a strongly elliptic Monge-Ampère equation. (Russian) **81a:35039**
- Skripnik, I. V. Topological characteristics of nonlinear elliptic problems. (Russian) **81j:35049**
Solvability of boundary value problems for nonlinear elliptic equations that are not in the divergence form. (Russian. English summary) **81c:35051**
- Sperb, René P. Maximum principles and nonlinear elliptic problems. **81f:35044**
- Stará, J. See Nečas, Jindřich; et al., **81a:35038**
- Švarc, R. See Nečas, Jindřich; et al., **81a:35038**
- Thews, Klaus Nontrivial solutions of elliptic equations at resonance. **81c:35054**
- Timofeev, Ju. A. See Bogazenko, I. N., **81c:35050**
- Tovkač, L. M. See Košelev, A. I.; et al., **81b:35034**
- Tr'val, Lang I Existence of solutions of nonlinear elliptic systems. **81c:35052**
- Ural'ceva, N. N. See Ladyženskaja, O. A., **81b:35061**

Werner, Bodo See Meyn, Klaus-Hermann, 81k:35063

White, R. E. A semilinear boundary value problem with nonincreasing nonlinear terms. 81k:35064

secondary classifications:

- Ambrosetti, Antonio (with Mancini, Giovanni) A free boundary problem and a related semilinear equation. (81k:35164)
- Bakel'man, I. Ja. (with Klot, Z. G.) The Dirichlet problem for Monge-Ampère equations and convex surfaces with given integral curvature in the Lobachevskii space. (Russian) (81e:53039)
- Bedford, Eric (with Burns, Daniel M., Jr.) Holomorphic mapping of annuli in C^n and the associated extremal function. (81b:32014)
- Bolley, Catherine Multiple solutions of a bifurcation problem. (81j:35012)
- Brézis, Haim (with Lions, Pierre-Louis) Boundary regularity for some nonlinear elliptic degenerate equations. (81e:35053)
- Burns, Daniel M., Jr. See Bedford, Eric, (81b:32014)
- Clorancescu, Doina (with Paulin, Jeannine Saint Jean) Homogenization in open sets with holes. (81j:35017)
- Codite, Mario M. Singular perturbations for a formally quasielliptic problem with variable coefficients in a half-space. (Italian. English summary) (81f:35015)
- Domaruk, A. On the regularity of solutions of quasilinear elliptic equations with one-sided boundary conditions. (Russian. Lithuanian and English summaries) (81j:35025)
- Dobinski, Ju. A. Some problems of the theory of Sobolev spaces of infinite order and of nonlinear equations. (81k:46037)
- Evans, Lawrence C. (with Lions, Pierre-Louis) Deux résultats de régularité pour le problème de Bellman-Dirichlet. (English summary) (81f:47049)
- Ferre, Francesco A minimal surface theorem with generalized boundary data. (Italian summary) (81e:49022)
- Fradkin, L. Ju. (with Wake, G. C.) Perturbations of the spectrum of nonlinear eigenvalue problems. (81j:35101)
- Franci, Jan On Signorini problem for von Kármán equations. The case of angular domain. (Czech and Russian summaries) (81f:73026)
- Glaschoff, Klaus (with Werner, Bodo) Inverse monotonicity of monotone L -operators with applications to quasilinear and free boundary value problems. (81e:47052)
- Gomez, Jean-Pierre Some nonlinear differential equations with resonance at the first eigenvalue. (81j:34072)
- Hardt, Robert M. (with Simon, Leon) Boundary regularity and embedded solutions for the oriented Plateau problem. (81b:53012)
- Harvey, Reese (with Lawson, H. Blaine, Jr.) Geometries associated to the group SU_n and varieties of minimal submanifolds arising from the Cayley arithmetic. (81h:49028)
- Jung, Bo Ju See Zhang, Gong Qing, (81j:47056)
- Klot, Z. G. See Bakel'man, I. Ja., (81e:53039)
- Lawson, H. Blaine, Jr. See Harvey, Reese, (81h:49028)
- Lions, Pierre-Louis See Brézis, Haim, (81e:35053) and Evans, Lawrence C., (81f:47049)
- Mancini, Giovanni See Ambrosetti, Antonio, (81k:35164)
- Marcellini, Paolo Periodic solutions and homogenization of nonlinear variational problems. (81j:35008)
- Mikljukov, V. M. Conformal type of surfaces, Liouville's theorem and Bernstein's theorem. (Russian) (81b:53013)
- Pascali, Dan Equations with an A -proper sum of operators. (Romanian. English summary) (81m:47088)
- Paulin, Jeannine Saint Jean See Clorancescu, Doina, (81j:35017)
- Pillat, Ulf (with Schulze, Bert-Wolfgang) Elliptische Randwertprobleme für Komplexe von Pseudodifferentialoperatoren. (81k:58064)
- Romero, Salvatore On the use of weighted norms in stability questions on exterior domains. (81d:73050)
- Salmurov, V. B. The compactness of an imbedding into nonisotropic spaces of vector-valued functions and applications. (Russian) (81f:46049)
- Schulze, Bert-Wolfgang Über eine Verheftung elliptischer Randwert-Probleme. (English summary) (81k:58065)
- See also Pillat, Ulf, (81k:58064)
- Simon, Leon See Hardt, Robert M., (81b:53012)
- Wake, G. C. See Fradkin, L. Ju., (81j:35101)
- Werner, Bodo See Glaschoff, Klaus, (81e:47052)
- Zarubin, A. G. The rate of convergence of Galerkin's method for quasilinear parabolic equations. (Russian) (81k:65129)
- Zhang, Gong Qing (with Jiang, Bo Ju) Multiple solutions for asymptotically linear operators. (81j:47056)

35J67 Boundary values of solutions

- Kapaneze, Dž. V. Boundary values of solutions of a second-order linear elliptic equation. (Russian. Georgian and English summaries) 81b:35036
- Mikhailov, V. P. The boundary values of solutions of elliptic equations. (Russian) (See 80f:35002)
- On the boundary values of the solutions of elliptic equations. 81g:35038
- Mizuta, Yoshihiro Existence of nontangential limits of solutions of nonlinear Laplace equation. 81f:35045

secondary classifications:

- Degjarev, L. M. See Vabišević, P. N., (81c:35114)
- Heinz, Erhard Über eine Verallgemeinerung des Plateauschen Problems. (English summary) (81f:35006)
- Lions, Jacques-Louis Homogénéisation non locale. (81d:35058)
- Vabišević, P. N. (with Degjarev, L. M.) A method of solving a problem with free boundaries for elliptic equations and systems. (Russian) (81c:35114)

35J70 Equations and systems of degenerate type

- Abdramanov, A. M. The Dirichlet problem for a degenerate not-strongly elliptic system of two second-order equations. (Russian) 81b:35037
- Amann, Kazuo Maximum principles for degenerate elliptic-parabolic operators. 81k:35065
- Arena, Orazio On a degenerate elliptic-parabolic equation. 81k:35066
- Bogachev, M. I. Degenerating elliptic problems in nonsmooth domains. (Russian) 81e:35055
- Boltsev, K. S. See Radtchov, N., 81b:35038
- Brézis, Haim (with Lions, Pierre-Louis) Boundary regularity for some nonlinear elliptic degenerate equations. 81e:35053
- Glushko, V. P. Theorems on the solvability of boundary value problems for a class of higher-order degenerate elliptic equations. (Russian) 81d:35032
- Grebenshikov, V. I. Construction of an elementary solution to a three-dimensional equation of elliptic type. (Russian) 81j:35050
- Ivaki, V. M. A problem for an elliptic equation, degenerate on part of the boundary. (Russian) 81d:35033
- Januškevičius, A. I. Pseudoregular singularities of solutions of degenerate elliptic equations. (Russian) 81g:35039
- Katrachov, V. V. General boundary value problems for a class of singular and degenerate elliptic equations. (Russian) 81k:35067
- Kolodii, I. M. A theorem of Liouville type for generalized solutions of degenerate quasilinear elliptic equations. (Ukrainian. Russian summary) 81g:35040
- Kvedaras, Bronius Solution of the Dirichlet problem for a degenerate elliptic equation. (Russian. Lithuanian and English summaries) 81d:35034
- Langlais, Michel Un problème unilatéral dégénéré. 81g:35041
- Lions, Pierre-Louis See Brézis, Haim, 81e:35053
- Malovikha, V. O. On solvability of boundary value problems for a class of elliptic-parabolic systems. (Russian. English summary) 81f:35046
- Mandras, Franco On the regularity of the solutions of a class of degenerate nonvariational elliptic equations. (Italian. English summary) 81k:35068
- Man'kovskii, A. A. The Cauchy-Dirichlet problem for systems of differential equations with an operator coefficient of elliptic type, degenerating on part of the boundary of the domain. (Russian. English summary) 81j:35051
- Novruzov, A. A. Behavior of solutions of degenerate second-order quasilinear elliptic equations. (Russian) (See 80d:00021)
- Pugni, Carlo Domenico On elliptic-parabolic equations of second order and approximating integral equations. (Russian summary) 81d:35035
- Porra, Giovanni Degenerate elliptic operators of order $2m$ and G -convergence. (Italian. English summary) 81m:35062
- Radtchov, N. (with Boltsev, K. S.) Representation of a manifold of solutions in the form of series for a class of differential equations of elliptic type with a singular line. (Russian) 81b:35038
- Rutkauskas, Stasys The Dirichlet problem for an elliptic equation with degeneracy on a line. (Russian. Lithuanian and English summaries) 81d:35036
- Šaripova, R. M. Boundary value problems for certain degenerate elliptic systems. (Russian) 81c:35056
- Serov, V. S. Fundamental solution of a differential operator with a singularity. (Russian) 81f:35047
- Taira, Kazuaki A strong maximum principle for degenerate elliptic operators. 81b:35039

secondary classifications:

- Boltsev, K. S. Analytic representation of a manifold of solutions for a second-order differential equation with a singular line. (Russian) (81d:35009)
- Buonocore, Pasquale Existence and uniqueness of a generalized solution to the Dirichlet problem for a class of degenerate systems. (Italian. English summary) (81a:35040)
- Cioffi, Antonietta The problem of Dirichlet type with respect to a class of elliptic-parabolic fourth-order operators that are hypoelliptic in the zone of degeneracy. (Italian. English summary) (81j:35035)
- Debbaj, O. (with Souissi, A.) Problème à dérivée oblique associé à des opérateurs elliptiques singuliers. (81b:35033)
- Étendier, R. S. Asymptotic behavior of the solution with respect to a small parameter of a boundary value problem for an elliptic equation with constant coefficients, degenerating into a parabolic equation. (Russian) (See 80d:00021)
- Ivanov, A. V. The first boundary value problem for quasilinear (A, B) -elliptic equations. (Russian. English summary) (81e:35034)
- Portnov, V. R. Existence theorems in the theory of flexible solids. (Russian) (81j:49002)
- Šackil, V. P. A boundary value problem for singular symmetric systems of odd order. (Russian) (81m:35030)
- Souissi, A. See Debbaj, O., (81b:35033)
- Triebel, Hans Strongly degenerate elliptic differential operators in Besov spaces: the case $0 < p < \infty$. (81j:46057)

35J85 Unilateral problems; variational inequalities [See also 35R35, 49A29.]

35J99 None of the above, but in this section

- Aliev, B. D. A qualitative study of solutions of elliptic equations of neutral type. (Russian) (See 80d:00021)
- Hayashida, Kazumari Sur l'unicité du prolongement des systèmes elliptiques dont la valeur initiale s'annule sur un sous-ensemble de mesure positive. (English summary) 81e:35054
- Infantino, R. (with Matarasso, S.; Troisi, M.) Spectral properties for a class of elliptic operators. (Italian. English summary) 81f:35076
- Kibirev, V. V. On the oblique derivative problem with linear coefficients for harmonic functions. (Russian) 81d:35037
- Matarasso, S. See Infantino, R.; et al., 81e:35076
- McCoy, Peter A. Polynomial approximation of generalized biaxially symmetric potentials. 81f:35048

- Saks, R. S. Noetherian boundary value problems for some classes of weakly elliptic systems of differential equations. (Russian) **81c:35057**
 Troist, M. See Infanteiro, R.; et al., **81i:35076**

secondary classifications:

- Berezans'kii, Ju. M. (with Samoilenko, V. G.) Selfadjointness of differential operators with finite and infinite number of variables. (Russian. English summary) **(81a:35095)**
 Bolley, P. (with Camus, Jacques; Mattera, Cl.) Analyticité microlocale et itérés d'opérateurs. **(81d:58050)**
 Camus, Jacques See Bolley, P.; et al., **(81d:58050)**
 Daniljuk, I. I. A class of free (unknown) boundary problems for elliptic equations. (Russian) (See **80f:35062**)
 Ekin, J. P. Estimées de Schauder pour des opérateurs elliptiques. (See **80j:53064**)
 Frolov, N. N. Selfadjointness of elliptic operators with an infinite number of variables. (Russian) **(81m:35134)**
 Gol'ber, I. I. Approximation of the solution to some boundary value and mixed problems. (Russian) **(81b:35002)**
 Hamza, F. On the solution of the first basic problem of infinite elastic homogeneous region of the theory of thermoelasticity. (Arabic summary) **(81a:73055)**
 Jurinskii, V. V. Application of the averaging method to elliptic equations with random coefficients. (Russian) **(81c:35115)**
 Le Hung Son. Maximale Erweiterung des Definitionsgebietes von Lösungen des n -dimensionalen Beltramschen Systems. **(81f:35020)**
 Mattera, Cl. See Bolley, P.; et al., **(81d:58050)**
 Nazarov, S. A. (with Nazarov, S. A.; Plamenevskii, B. A.) Asymptotic behavior of the solutions of elliptic boundary value problems in the case of variation of the domain near conic points. (Russian) **(81a:35011)**
 Nakonečnii, V. V. The invariance algebra of a system of equations of elliptic type. (Russian. English summary) **(81a:35006)**
 Nazarov, S. A. See Nazarov, S. A.; et al., **(81a:35011)**
 Nemii, Ju. M. Three-dimensional boundary value problems of the theory of elasticity for noncanonical regions. **(81m:73016)**
 Plamenevskii, B. A. See Nazarov, S. A.; et al., **(81a:35011)**
 Radikvič, E. V. A problem of filtration in a porous inhomogeneous nonisotropic medium. (Russian) **(81f:76044)**
 Saak, E. M. The analogue of Neumann's theorem in the class $W_2^{(1)}(\Omega)$. (Russian) **(81a:30005)**
 Samoilenko, V. G. See Berezans'kii, Ju. M., **(81a:35095)**
 Šubin, M. A. Almost periodic elliptic operators. (Russian) (See **80f:35002**)
 Ting, Tsuan Wu. The repeated loading-unloading processes of elastic-plastic torsion of solid bars. **(81a:73023)**
 Tomitski, Matsuyo. Superposition of diffusion processes. **(81m:60142)**
 Vainerman, L. I. A degenerate elliptic equation with a variable operator coefficient. (Russian) **(81a:34054)**

35Kxx Parabolic equations and systems [See also 58G11.]

35K05 Heat equation

- Arai, Tsutomu. On the existence of solutions for doubly nonlinear parabolic equations. **81c:35069**
 Ascoli, Aldo. On the determination of the periodic solution of the diffusion equation with periodic impulse. (Italian) **81j:35052**
 Błazanova, G. I. A problem of conjugation for the heat equation in a spherical region. (Russian) **81a:35041**
 Bochner, Salomon. Positivity of the heat kernel for ultraspherical polynomials and similar functions. **81b:35040**
 Bove, Antonio (with Franchi, Bruno; Obrecht, Enrico) An initial-boundary value problem with mixed lateral conditions for heat equation. (Italian summary) **81c:35058**
 Damskian, Alain (with Kenmochi, Nobuyuki) Le problème de Stefan avec conditions latérales variables. **81j:35053**
 Franchi, Bruno See Bove, Antonio; et al., **81c:35058**
 Friedman, Avner (with Kamin, Shoshana) The asymptotic behavior of gas in an n -dimensional porous medium. **81j:35054**
 Kamin, Shoshana See Friedman, Avner, **81j:35054**
 Kaufman, Robert P. (with Wu, Jang Mei G.) Singularity of parabolic measures. **81c:35055**
 Kenmochi, Nobuyuki See Damskian, Alain, **81j:35053**
 Kračev, B. N. An inverse problem for a heat equation. (Russian. Bulgarian and English summaries) **81m:35063**
 Meirmanov, A. M. Classical solvability of the multidimensional Stefan problem. (Russian) **81a:35042**
 The classical solution of a multidimensional Stefan problem for quasilinear parabolic equations. (Russian) **81j:35055**
 Mukminov, F. H. Behavior as $t \rightarrow \infty$ of solutions of the first mixed problem for the heat equation in domains that are unbounded with respect to the space variables. (Russian) **81b:35041**
 Obrecht, Enrico See Bove, Antonio; et al., **81c:35058**
 Puhmačev, V. V. Generation of a singularity in the solution of a Stefan-type problem. (Russian) **81f:35049**
 Šopolor, N. N. A boundary value problem for the heat equation. (Russian) **81d:35038**
 Srivastava, H. S. P. A generalized function of two variables and generalized associated Legendre functions. **81b:35042**
 Watson, N. A. Convexity of mean values of nonnegative subtemperatures. **81c:35059**
 Wilcox, Calvin H. Positive temperatures with prescribed initial heat distributions. **81c:35077**
 Wu, Jang Mei G. See Kaufman, Robert P., **81c:35055**

secondary classifications:

- Agarwal, Ravi P. (with Thandapani, E.) On the uniqueness of solutions of hyperbolic delay differential equations. **(81c:35154)**
 Anger, Gottfried. Ein inverses Problem der Wärmeleitungsgleichung. I. **(81c:31004)**
 di Benedetto, Emmanuele See Cannon, John R., **(81j:35058)**
 Biolley, Yves. On the backward heat problem: evaluation of the norm of $\partial u / \partial t$. **(81j:35106)**
 Cannon, John R. (with DuChateau, P.) An inverse problem for an unknown source in a heat equation. **(81k:35161)**
 (with di Benedetto, Emmanuele) On the existence of weak-solutions to an n -dimensional Stefan problem with nonlinear boundary conditions. **(81j:35058)**
 Dont, Miroslav. The heat and adjoint heat potentials. (Czech summary) **(81j:31018)**
 DuChateau, P. See Cannon, John R., **(81k:35161)**
 Elubaev, S. E. Regularization of the inverse problem for the heat equation. (Russian. Kazakh summary) **(81c:35159)**
 Fomin, W. M. See Kovalev, O. B.; et al., **(81d:80006)**
 Franchi, Franca. A uniqueness theorem for the propagation of heat through forced convection with finite velocity in an unbounded domain. (Italian) **(81b:80003)**
 Halmo, Deborah Tepper. Homogeneous generalized temperatures. **(81b:80013)**
 Ishii, Hitoshi. Asymptotic stability and existence of almost periodic solutions for the one-dimensional two-phase Stefan problem. **(81m:35139)**
 Janenko, N. N. See Kovalev, O. B.; et al., **(81d:80006)**
 Jurii, A. D. An optimal problem of Stefan type. (Russian) **(81k:49025)**
 Kartashev, E. M. (with Šahurdin, V. I.; Nečaev, V. M.) A class of dynamical problems of thermoelasticity in a region with moving boundaries. (Russian) **(81m:73081)**
 Koskin, P. I. A scheme of increased accuracy for a heat equation with discontinuous coefficients. (Russian) **(81c:65048)**
 Kostyleva, V. D. Optimality conditions in a nonlinear heat distribution control problem. (Russian. English summary) **(81c:93045)**
 Kovalev, O. B. (with Lar'kin, N. A.; Fomin, W. M.; Janenko, N. N.) The solution of nonhomogeneous thermal problems and the Stefan single-phase problem in arbitrary domains. **(81d:80006)**
 Kriš, Josef (with Mrzena, Stanislav) Heat sources and heat potentials. (Czech summary) **(81j:31019)**
 Lakusta, K. V. (with Timofeev, Ju. A.) Estimating the range of applicability of the hyperbolic thermal conductivity equation. **(81g:35085)**
 Lapin, A. V. Investigation of a nonstationary nonlinear variational inequality. (Russian) **(81j:49003)**
 Lar'kin, N. A. See Kovalev, O. B.; et al., **(81d:80006)**
 Lerman, L. B. (with Tereščenko, M. I.) Application of normal-regular solutions to problems of heat conduction. (Ukrainian. English and Russian summaries) **(81i:35080)**
 Luzgina, T. N. See Vasil'eva, V. N., (See **80i:80004**)
 Mamatov, A. Application of the method of heat potentials to a nonlinear heat equation. (Russian) **(81f:35010)**
 Mansell, Paolo (with Miller, Keith) Calculation of the surface temperature and heat flux on one side of a wall from measurements on the opposite side. (Italian summary) **(81m:80004)**
 Miller, Keith See Mansell, Paolo, **(81m:80004)**
 Mrzena, Stanislav See Kriš, Josef, **(81j:31019)**
 Muzylyev, N. V. Uniqueness theorems for some inverse problems of heat transfer. (Russian) **(81c:35160)**
 Nečaev, V. M. See Kartashev, E. M.; et al., **(81m:73081)**
 Ozawa, Shin. Perturbation of domains and Green kernels of heat equations. **(81g:49036a)**
 Perturbation of domains and Green kernels of heat equations. II. **(81g:49036b)**
 Perturbation of domains and Green kernels of heat equations. III. **(81g:49036c)**
 Parker, E. N. ★Cosmical magnetic fields. **(81c:85001)**
 Raynal, Marie-Lise. On some nonlinear problems of diffusion. **(81b:45024)**
 Šahurdin, V. I. See Kartashev, E. M.; et al., **(81m:73081)**
 Simons, S. On the sign of \dot{S} for thermal conduction. **(81c:80003)**
 Suzuki, Noriaki. On the essential boundary and supports of harmonic measures for the heat equation. **(81m:31015)**
 Tereščenko, M. I. See Lerman, L. B., **(81i:35080)**
 Thandapani, E. See Agarwal, Ravi P., **(81c:35154)**
 Timofeev, Ju. A. See Lakusta, K. V., **(81g:35085)**
 Vasil'eva, V. N. (with Luzgina, T. N.) On the question of the uniqueness of an inverse problem for the heat equation. (Russian) (See **80i:80004**)

35K10 Second-order equations, general

- Amonov, B. K. Uniqueness and stability of the solution of an equation of parabolic type with data on discrete sets of points. (Russian) **81j:35056**
 Eidel'man, S. D. See Porper, F. O., **81g:35042**
 Filatov, V. V. Analytic continuation from a discrete set of solutions of the heat equation. (Russian) **81d:35039**
 Galaktionov, V. A. (with Kurdjumov, S. P.; Mihallov, A. P.; Samarskii, A. A.) Comparison of solutions of parabolic equations on the basis of a priori pointwise estimates of the highest derivative. (Russian. English summary) **81a:35043**
 Kurdjumov, S. P. See Galaktionov, V. A.; et al., **81a:35043**
 Mamedov, I. T. On a priori estimation of the Hölder norm of the solutions to quasilinear parabolic equations with discontinuous coefficients. (Russian) **81m:35064**
 Mihallov, A. P. See Galaktionov, V. A.; et al., **81a:35043**
 Porper, F. O. (with Eidel'man, S. D.) Theorems on the asymptotic nearness of solutions of second-order multidimensional parabolic equations. (Russian) **81g:35042**
 Rolandi, Francesca. A maximum principle for the solution to the nonlinear heat equation that is discontinuous with respect to the unknown. (Italian) **81d:35040**
 Samarskii, A. A. See Galaktionov, V. A.; et al., **81a:35043**
 Tikhova, R. S. Nonnegativity of generalized solutions of the first and third boundary value problems for elliptic systems of differential equations. (Russian) **81k:35079**

secondary classifications:

- Bala, V. V. Estimates of derivatives of the solution to linear equations of elliptic and parabolic type with discontinuous coefficients. (Russian) (81a:35020)
- Grossmann, U. Existence and uniqueness of solutions of quasilinear transmission problems of both elliptic and pseudoparabolic type simulating oxygen transport in capillary and tissue. (81e:92006)
- Roos, Hans-Görg Die asymptotische Lösung einer parabolischen Differentialgleichung in der Umgebung eines kritischen Punktes. (81c:35005)
- Schiavino, Andrea On a Volterra diffusion system. (Italian summary) (81b:35046)
- Zaidman, Samuel D. A partial differential equation with almost-periodic right-hand side. (French summary) (81b:35004)

35K15 Second-order equations, initial value problems

- Colton, David The approximation of solutions to the backwards heat equation in a nonhomogeneous medium. (81c:35056)
- Fedosova, A. I. Nonreflecting potentials and exact solutions of the Fokker-Planck-Kolmogorov equation. (Russian) (81c:35057)
- Galaktionov, V. A. (with Kurdjumov, S. P.; Mikhailov, A. P.; Samarskii, A. A.) Unbounded solutions of semilinear parabolic equations. (Russian. English summary) (81c:35060)
- Gerhardt, Claus Evolutionary surfaces of prescribed mean curvature. (81c:35078)
- Himčenko, B. N. See Kamylin, L. I., 81b:35043
- Kamylin, L. I. (with Himčenko, B. N.) The uniqueness of the solution to the Cauchy problem for a second-order parabolic equation with nonnegative characteristic form. (Russian) (81b:35043)
- Kurdjumov, S. P. See Galaktionov, V. A.; et al., 81c:35060
- Mikhailov, A. P. See Galaktionov, V. A.; et al., 81c:35060
- Platenčik, A. L. A parabolic equation with rapidly oscillating coefficients. (Russian summary) (81c:35050)
- Samarskii, A. A. See Galaktionov, V. A.; et al., 81c:35060

secondary classifications:

- Chen, Lu San Note on asymptotic behavior of weak solutions of the Cauchy problem for some parabolic equations with unbounded coefficients. (81c:35009)
- Colmer, Chris Asymptotic behavior of solutions of second order parabolic partial differential equations with unbounded coefficients. (81c:35010)

35K20 Second-order equations, boundary value problems

- Alexandres, Vasilios A singular parabolic initial-boundary value problem in a noncylindrical domain. (81c:35079)
- Berryman, James G. (with Holland, Charles J.) Stability of the separable solution for fast diffusion. (81m:35065)
- Bitanova, G. I. A transformation of the Green function. (Russian) (81c:35061)
- Bluman, George (with Kumei, Sukeyuki) On the remarkable nonlinear diffusion equation $(\partial/\partial x)(a(u+b)^{-2}(\partial u/\partial x)) - (\partial u/\partial t) = 0$. (81g:35043)
- Caffarelli, Luis A. (with Friedman, Avner) The one-phase Stefan problem and the porous medium diffusion equation: continuity of the solution in n space dimensions. (81h:35021)
- Fabes, E. B. (with Riviere, N. M.) Dirichlet and Neumann problems for the heat equation in C^1 -cylinders. (81b:35044)
- Friedman, Avner See Caffarelli, Luis A., 81h:35021
- Galaktionov, V. A. Conditions for \bar{V} -criticality and methods of comparing solutions of parabolic equations. (Russian. English summary) (81c:35057)
- Gul'cin, A. K. Stabilisation of solutions of the second boundary value problem for a second-order parabolic equation. (Russian) (See 80f:35002)
- Guseinov, Z. A. Nonlinear parabolic equations in an Orlicz-Sobolev space. (Russian. Azerbaijani and English summaries) (81b:35045)
- Guz, A. S. A method of solving the third boundary value problem on the semiaxis for a linear parabolic equation with variable coefficients. (Russian. English summary) (81c:35058)
- Holland, Charles J. See Berryman, James G., 81m:35065
- Ibragimov, A. I. (with Novruzov, A. A.) The criterion of regularity of a boundary point for quasilinear parabolic equations. (Russian) (81c:35062)
- Korobčuk, I. V. (with Mironjuk, P. I.) Properties of solutions of parabolic equations and second-order systems. (Russian) (81c:35071)
- Kumei, Sukeyuki See Bluman, George, 81g:35043
- Lerman, L. B. (with Tereščenko, M. I.) Application of normal-regular solutions to problems of heat conduction. (Ukrainian. English and Russian summaries) (81b:35080)
- Lisena, B. A boundary value problem in an angle for a second-order parabolic equation of general type. (Italian. English summary) (81b:35072)
- Maugeri, Antonino A boundary value problem for a class of singular parabolic equations. (Italian. English summary) (81g:35044)
- Mironjuk, P. I. See Korobčuk, I. V., 81c:35071
- Mukhinov, F. H. Stabilization of the solutions of the first mixed problem for a second-order parabolic equation. (Russian) (81c:35059)
- Novruzov, A. A. See Ibragimov, A. I., 81c:35062
- Petrushko, I. M. On boundary values in E_p , $p > 1$, of solutions to parabolic equations. (Russian) (81g:35045)
- Rasulov, T. M. Plane mixed problems for parabolic systems in domains with boundaries that are variable in time. (Russian) (81d:35041)
- Riviere, N. M. See Fabes, E. B., 81b:35044
- Tao, L. N. On free boundary problems with arbitrary initial and flux conditions. (81f:35051)
- Tereščenko, M. I. See Lerman, L. B., 81b:35080
- Triggiani, Roberto Well-posedness and regularity of boundary feedback parabolic systems. (81f:35052)
- Try, William C. The existence of traveling wave front solutions of a model of the

Belousov-Zhabotinskii chemical reaction. (81f:35053)

Ughi, Mauro Existence theorems for boundary value problems of the fourth and fifth type for a linear parabolic equation. (Italian) (81c:35073)

Ugowski, Henryk On weak solutions of random linear parabolic equations. (81m:35066)

Usakov, V. I. Stabilization of solutions of the third mixed problem for a second-order parabolic equation in a noncylindrical domain. (Russian) (81f:35054)

secondary classifications:

- Alexandres, Vasilios Singular perturbations for a singular parabolic initial-boundary value problem. (81c:35016)
- Kuttler, J. R. (with Sigillito, Vincent G.) Explicit L_2 inequalities for parabolic and pseudoparabolic equations with Neumann boundary conditions. (81c:35070)
- Lawlor, F. See Mitchell, Andrew Ronald, (81c:35011)
- Li, Da Qian Comportements limites pour certains problèmes du contrôle optimal de systèmes gouvernés par des équations paraboliques. (English summary) (81m:49004)
- Mamedov, I. T. See Novruzov, A. A., (81c:35042)
- Maugeri, Antonino On a class of singular parabolic equations. (Italian. English summary) (81c:35087)
- Mitchell, Andrew Ronald (with Lawlor, F.) The parabolic-hyperbolic interface in conduction-convective problems. (81c:35011)
- Nababan, S. (with Teo, K. L.) On the existence of optimal controls of the first boundary value problems for parabolic partial delay-differential equations in divergence form. (81d:49004)
- Novruzov, A. A. (with Mamedov, I. T.) On R -identity of second-order elliptic and parabolic operators. (Russian) (81j:35042)
- Pervak, V. D. See Valček, K. G., (81d:35010)
- Puhnačev, V. V. Generation of a singularity in the solution of a Stefan-type problem. (Russian) (81f:35049)
- Sigillito, Vincent G. See Kuttler, J. R., (81c:35070)
- Temkin, L. A. On the construction of periodic solutions of an equation of parabolic type. (Russian. Estonian and English summaries) (81m:35016)
- Teo, K. L. See Nababan, S., (81d:49004)
- Valček, K. G. (with Pervak, V. D.) Foundation and application of Hill's method to parabolic equations. (Russian) (81d:35010)
- Ziemer, William P. Behavior at the boundary of solutions of quasilinear parabolic equations. (81c:35073)

35K22 Evolution equations (any order in the spatial derivatives) [See also 58D25.]

Bardos, Claude See Cooper, Jeffery, (See 80d:00017a)

Cooper, Jeffery (with Bardos, Claude) A nonlinear evolution of Schrödinger type. (See 80d:00017a)

Grădinaru, N. Nonhomogeneous evolution systems with homogeneous initial and boundary conditions. (Romanian summary) (81c:35063)

Kobayashi, Kusuo On some semilinear evolution equations with time-lag. (81c:35060)

Paguet, Luc Semi-groupes généralisés, semi-groupes et opérateurs paraboliques. (English summary) (81c:35061)

secondary classifications:

- Aubin, Jean-Pierre (with Ekeland, Ivar) Second-order evolution equations associated with convex Hamiltonians. (81j:58026)
- Charrier, Pierre Système complémentaire pour un problème unilatéral d'évolution: application au problème de temps d'arrêt. (81j:31017)
- Chen, Hsing Hen (with Lee, Y. C.; Liu, C. S.) Integrability of nonlinear Hamiltonian systems by inverse scattering method. (81c:35008)
- Da Prato, Giuseppe (with Grisvard, Pierre) Equations d'évolution abstraites non linéaires de type parabolique. (English summary) (81d:34052)
- Ekeland, Ivar See Aubin, Jean-Pierre, (81j:58026)
- Fujiwara, Daisuke A construction of the fundamental solution for the Schrödinger equation. (81i:35145)
- Grisvard, Pierre See Da Prato, Giuseppe, (81d:34052)
- Horsthemke, W. See Kitahara, Kazuo; et al., (81h:00010)
- Kenmochi, Nobuyuki On nonlinear parabolic variational inequalities with time-dependent constraints. (Japanese) (81h:47052)
- Résultats de compacité dans des espaces de Banach dépendant du temps. (81d:46038)
- Kitahara, Kazuo (with Horsthemke, W.; Lefever, R.) Coloured-noise-induced transitions: exact results for external dichotomous Markovian noise. (81h:00010)
- Lee, Y. C. See Chen, Hsing Hen; et al., (81c:35008)
- Lefever, R. See Kitahara, Kazuo; et al., (81h:00010)
- Liu, C. S. See Chen, Hsing Hen; et al., (81c:35008)
- Nakao, Mitsuhiro Decay of solutions of some nonlinear parabolic equations in noncylindrical domains. (81b:34056)
- Nishiwada, Kimimasa Constant coefficient differential operators with slowly spreading solutions. (81j:35027)
- Scarpini, F. The numerical approximation of a unilateral parabolic problem with respect to some nonlinear operators. (Italian. English summary) (81c:65046)
- Sur une inéquation d'évolution parabolique du type II, associée à un problème d'asservissement thermique. (English summary) (81i:49006)
- Véron, Laurent Effets régularisants de semi-groupes non linéaires dans des espaces de Banach. (English summary) (81i:47066)
- Vrblje, Ivan I. Une méthode de compacité pour une classe d'inéquations d'évolution non linéaires. (English summary) (81d:49009)
- Webb, G. F. An age-dependent epidemic model with spatial diffusion. (81h:92052)
- Yotsutani, Shoji Evolution equations associated with the subdifferentials. (81c:47066)

35K25 Higher-order equations, general

- Eidel'man, S. D.** (with Tyčinskaja, L. M.) Construction of fundamental solutions for degenerate parabolic equations of arbitrary order. (Russian. English summary) **81f:35055**
- Kozlov, O. N.** Summability of classical positive solutions of parabolic systems with a Bessel operator. (Russian) **81c:35064**
- Tyčinskaja, L. M.** See **Eidel'man, S. D.**, **81f:35055**

secondary classifications:

- Eidel'man, S. D.** See **Kondrat'ev, V. A.**, (See **80f:35002**)
- Ivanović, M. D.** The problem of quasireversibility for a higher-order parabolic equation in a uniform metric. (Russian) (**81a:35096**)
- Kondrat'ev, V. A.** (with **Eidel'man, S. D.**) Properties of positive solutions of systems of partial differential equations. (Russian) (See **80f:35002**)

35K30 Higher-order equations, initial value problems

- Brzezinski, Jan** An initial value problem for a singular parabolic equation of even order. **81f:35056**
- Fragola, A.** Perturbation of a polyharmonic operator by potentials with small supports. (Russian) **81g:35046**
- Grimaldi, A.** (with **Ragnedda, F.**) A Cauchy problem for a certain equation, 2b-parabolic in the sense of Petrovskii, with data in suitable spaces. (Italian. English summary) **81c:35065**
- Milewski, Jan** The Cauchy problem for certain equations involving the ultraparabolic operator. (Russian summary) **81a:35045**
- Ragnedda, F.** See **Grimaldi, A.**, **81c:35065**

35K35 Higher-order equations, boundary value problems

- Damlamian, Alain** (with **Li, Da Qian**) Comportement limite des solutions de certains problèmes mixtes pour des équations paraboliques. (English summary) **81f:35057**
- Galaktionov, V. A.** (with **Kurdjumov, S. P.**; **Mihailov, A. P.**; **Samarskii, A. A.**) The comparison of solutions to parabolic equations. (Russian) **81g:35047**
- Janiec, Barbara** Some properties of generalized thermal potential and its application to the solution of a boundary value problem for equations of parabolic type. (Polish. Russian and English summaries) **81i:35081**
- Kružkov, S. N.** Quasilinear parabolic equations and systems with two independent variables. (Russian) **81a:35046**
- Kurdjumov, S. P.** See **Galaktionov, V. A.**; et al., **81g:35047**
- Li, Da Qian** See **Damlamian, Alain**, **81f:35057**
- Mihailov, A. P.** See **Galaktionov, V. A.**; et al., **81g:35047**
- Pecher, Hartmut** On global regular solutions of third order partial differential equations. **81c:35062**
- Samarskii, A. A.** See **Galaktionov, V. A.**; et al., **81g:35047**
- Soltanov, K. N.** Solvability of some nonlinear parabolic problems. (Russian) **81g:35048**
- Šoplov, N. N.** Some boundary value problems for third-order parabolic equations. (Russian) **81f:35058**
- Triggiani, Roberto** Boundary stabilizability for diffusion processes. **81g:35049**
- Yamada, Yoshio** Some remarks on the equation $y_{tt} - \sigma(y_x)y_{xx} - y_{xxx} = f$. **81m:35067**

secondary classifications:

- Nahshan, S.** (with **Teo, K. L.**) Existence and uniqueness of weak solutions of the Cauchy problem for parabolic delay-differential equations. (**81f:35111**)
- Šaigardarov, Ju. Z.** Asymptotic behavior of the solution of a boundary value problem for a fourth-order parabolic equation. (Russian) (**81c:35020**)
- Teo, K. L.** See **Nahshan, S.**, (**81f:35111**)

35K40 Systems, general

- Brown, Peter N.** Decay to uniform states in ecological interactions. **81a:35047**
- Šamaev, A. S.** Removable singular points for the solutions of parabolic systems. (Russian. English summary) **81d:35042**

secondary classifications:

- Dumlinger, D. R.** On Liouville-type theorems for elliptic and parabolic systems. (**81a:35021**)
- Martin, Robert H., Jr.** Invariant sets and a mathematical model involving semilinear differential equations. (**81a:47009**)
- Oleinik, O. A.** The behavior of solutions of elliptic and parabolic systems in unbounded domains. (Russian) (See **80f:35002**)

35K45 Systems, initial value problems

- Kulekeev, K. D.** See **Žumabekov, L.**, **81c:35067**
- Sleeman, B. D.** Instability of certain traveling wave solutions to the Fitz Hugh-Nagumo nerve axon equations. **81c:35066**
- Žumabekov, L.** (with **Kulekeev, K. D.**) Fundamental solution of the operator $\partial/\partial t - \Delta$ and its application to the solution of conjugacy problems for a system. (Russian) **81c:35067**

secondary classifications:

- Hačatryan, A. G.** See **Solomonik, V. A.**, (**81f:35060**)
- Okabe, Takayoshi** See **Ukai, Seiji**, (**81f:35007**)
- Solomonik, V. A.** (with **Hačatryan, A. G.**) Estimates for solutions of parabolic initial-boundary value problems in weighted Hölder norms. (Russian) (**81f:35060**)
- Ukai, Seiji** (with **Okabe, Takayoshi**) On classical solutions in the large in time of two-dimensional Vlasov's equation. (**81f:35007**)

35K50 Systems, boundary value problems

- Bernik, V. I.** (with **Ptačnik, B. I.**) A boundary value problem for a system of partial differential equations with constant coefficients. (Russian) **81c:35068**
- Fattorusso, Luisa** Existence and uniqueness theorems for the weak solutions of boundary value problems for a class of parabolic systems of second-order equations. (Italian. English summary) **81m:35068**
- Hačatryan, A. G.** See **Solomonik, V. A.**, **81f:35060**
- Ivashin, S. D.** Composition of parabolic kernels. (Russian) **81a:35048**
- Matfuch, M. I.** Fundamental solutions of parabolic systems with discontinuous coefficients, and their applications to boundary value problems. III. (Russian) **81f:35059**
- Fundamental solutions of parabolic systems with discontinuous coefficients, and their applications to boundary value problems. IV. (Russian) **81h:35022**
- Ptačnik, B. I.** See **Bernik, V. I.**, **81c:35068**
- Solomonik, V. A.** (with **Hačatryan, A. G.**) Estimates for solutions of parabolic initial-boundary value problems in weighted Hölder norms. (Russian) **81f:35060**

secondary classifications:

- Antonev, S. N.** (with **Meirmanov, A. M.**) Mathematical questions on the correctness of a model of the simultaneous motion of surface and underground water. (Russian) (**81f:76042**)
- Kulekeev, K. D.** See **Žumabekov, L.**, (**81c:35067**)
- Meirmanov, A. M.** See **Antonev, S. N.**, (**81f:76042**)
- Olmstead, W. E.** Diffusion systems reacting at the boundary. (**81h:80012**)
- Žumabekov, L.** (with **Kulekeev, K. D.**) Fundamental solution of the operator $\partial/\partial t - \Delta$ and its application to the solution of conjugacy problems for a system. (Russian) (**81c:35067**)

35K55 Nonlinear equations and systems

- Arnold, L.** (with **Theodosopulu, M.**) Deterministic limit of the stochastic model of chemical reactions with diffusion. **81f:35061**
- Atkinson, C.** (with **Bouillet, Julio E.**) Some qualitative properties of solutions of a generalised diffusion equation. **81a:35049**
- di Benedetto, Emmanuele** See **Cannon, John R.**, **81j:35058** and **Cannon, John R.**, **81k:35074**
- Bilopols'ka, Ja. I.** (with **Dalec'kii, Ju. L.**) Markov processes connected with nonlinear parabolic systems. (Russian) **81d:35043**
- (with **Dalec'kii, Ju. L.**) An investigation of the Cauchy problem for a nonlinear parabolic system via operator-valued multiplicative functionals of Markov random processes. (Russian) **81h:35023**
- Boiko, L. F.** See **Martynenko, M. D.**, **81c:35071**
- Bouillet, Julio E.** (with **de Saravia, Dolores A.**; **Villa, Luis T.**) Similarity solutions of the equation of one-dimensional heat conduction. **81c:35069**
- See also **Atkinson, C.**, **81a:35049**
- Cannon, John R.** (with **di Benedetto, Emmanuele**) On the existence of solutions of boundary value problems in fast chemical reactions. (Italian summary) **81k:35074**
- (with **di Benedetto, Emmanuele**) On the existence of weak-solutions to an n -dimensional Stefan problem with nonlinear boundary conditions. **81j:35058**
- Capasso, Vincenzo** (with **Fortunato, Donato**) Stability results for a diffusive nonlinear deterministic epidemic model. (Italian summary) **81c:35063**
- (with **Fortunato, Donato**) Stability results for a class of reaction-diffusion equations. **81m:35069**
- (with **Fortunato, Donato**) Stability results for semilinear evolution equations and their application to some reaction-diffusion problems. **81k:35075**
- Capuzzo Dolcetta, I.** (with **Vivaldi, Maria Agostina**) Existence of a regular solution of a quasivariational inequality in an unbounded domain. **81h:35024**
- Cocile, Mario M.** On a theoretical model for the expansion of atoms of a metal arranged over an atomizer. (Italian. English summary) **81j:35059**
- Dalec'kii, Ju. L.** See **Bilopols'ka, Ja. I.**, **81d:35043** and **Bilopols'ka, Ja. I.**, **81h:35023**
- Damlamian, Alain** Sur certaines équations quasi-linéaires de type "divergentielle" d'ordre arbitraire. **81k:35076**
- Dias, João-Paulo** On the existence of a strong solution for a nonlinear evolution system. **81k:35077**
- Dotko, Tomasz** On singular nonlinear parabolic differential inequalities in unbounded domains. **81m:35070**
- Ewer, J. P. G.** Asymptotic properties of nonlinear diffusion processes. **81f:35062**
- Fife, Paul C.** Long time behavior of solutions of bistable nonlinear diffusion equations. **81f:35063**
- Fortunato, Donato** See **Capasso, Vincenzo**, **81c:35063**; **Capasso, Vincenzo**, **81k:35075** and **Capasso, Vincenzo**, **81m:35069**
- Freidlin, M. I.** Propagation of a concentration wave in random motion conjugated with the substance growth. (Russian) **81a:35044**
- Galaktionov, V. A.** (with **Kurdjumov, S. P.**; **Mihailov, A. P.**) Metastable localization of disturbances in problems for equations of nonlinear heat conduction type. (Russian. English summary) **81g:35050**
- (with **Kurdjumov, S. P.**; **Mihailov, A. P.**; **Samarskii, A. A.**) An approach to the comparison of solutions of parabolic equations. (Russian) **81f:35064**
- Gardner, Robert A.** Asymptotic behavior of semilinear reaction-diffusion systems with Dirichlet boundary conditions. **81f:35065**
- Global stability of stationary solutions of reaction-diffusion systems. **81j:35060**
- Gibbs, R. G.** Traveling waves in the Belousov-Zhabotinskii reaction. **81c:35051**
- Hačatryan, A. G.** Investigation of stability of steady-state and periodic solutions of nonlinear parabolic systems. (Russian. English summary) **81k:35078**
- Hosono, Yuzo** (with **Mimura, Masayasu**) Singular perturbation to travelling wave solutions of some competitive systems with diffusion. **81m:35071**
- Kidachi, Hideyuki** On mode interactions in reaction diffusion-equation with nearly degenerate bifurcations. **81f:35082**
- Kikuchi, Norio** Kneser's property for $\partial u/\partial t = \Delta u + \sqrt{u}$. **81h:35025**

- Kilman, Norbert Ein Maximumprinzip für nichtlineare parabolische Systeme. **81g:35052**
- Kurdjumov, S. P. See Galaktionov, V. A.; et al., **81f:35064**
- Kukula, S. B. Quasilinear parabolic equations. (Russian) **81k:35079**
- Kurdjumov, S. P. See Galaktionov, V. A.; et al., **81g:35050**
- Kuwabara, Ritschi Spectral invariants of linear differential operators and conservation laws of nonlinear equations. **81c:35070**
- Lakshmikantham, V. (with Vaughn, Randy) Parabolic differential inequalities in cones. **81k:35064**
- Comparison results for reaction-diffusion equations in a Banach space. **81c:35065**
- Lange, Charles G. (with Larson, D. A.) Transient solutions to some weakly diffusive nonlinear diffusion equations. **81k:35080**
- Larson, D. A. See Lange, Charles G., **81k:35080**
- Maddalena, Lucia Maximum principle for subsolutions of weakly coupled quasilinear systems. (Italian. English summary) **81j:35061**
- Maginu, Kenjiro Stability of spatially homogeneous periodic solutions of reaction-diffusion equations. **81j:35062**
- Martynenko, M. D. (with Boiko, L. F.) The solvability of problems without initial conditions for systems that are parabolic in the sense of I. G. Petrovskii. (Russian) **81c:35071**
- Maugeri, Antonino On variational inequalities of parabolic type. (Italian. English summary) **81g:35053**
- Mihailov, A. P. See Galaktionov, V. A.; et al., **81f:35064** and Galaktionov, V. A.; et al., **81g:35050**
- Mimura, Masayasu (with Nishiura, Yasumasa; Yamaguti, Masaya) Some diffusive prey and predator systems and their bifurcation problems. **81a:35050**
- Asymptotic behaviors of a parabolic system related to a planktonic prey and predator model. **81i:35083**
- See also Hosono, Yuzo, **81m:35071**
- de Mottoni, Piero (with Rothe, F.) A singular perturbation analysis for a reaction-diffusion system describing pattern formation. **81m:35072**
- See also Rothe, F., **81f:35067**
- Nakamura, O. Inéquations variationnelles et système d'inéquations quasi variationnelles d'évolution de type parabolique. **81j:35063**
- Nishiura, Yasumasa See Mimura, Masayasu; et al., **81a:35050**
- Pao, C. V. On the blowing-up behavior of solutions for a parabolic boundary value problem. **81i:35084**
- Redheffer, Raymond (with Walter, Wolfgang) Counterexamples for uniqueness in strongly coupled parabolic systems. **81f:35066**
- Rothe, F. (with de Mottoni, Piero) A simple system of reaction-diffusion equations describing morphogenesis: asymptotic behavior. **81f:35067**
- See also de Mottoni, Piero, **81m:35072**
- Samar'skii, A. A. See Galaktionov, V. A.; et al., **81f:35064**
- de Saravia, Dolores A. See Bouillet, Julio E.; et al., **81c:35069**
- Schönbeck, Maria Elena Decay of solutions to parabolic conservation laws. **81k:35081**
- Sinestrari, Eugenio (with Vernole, Paola) A hysteretic semilinear parabolic equation. (Italian summary) **81g:35054**
- Sperb, René P. Nonlinear diffusion-reaction problems with time-dependent diffusion coefficient. **81c:35066**
- Tang, Min Ming Some results on a reaction-diffusion system. **81k:35082**
- Theodoropoulou, M. See Arnold, L., **81f:35061**
- Tutschke, Wolfgang Vollständige Linearisierung instationärer Prozesse in der Ebene durch komplexe Methoden. **81g:35055**
- Uchiyama, Kōhei On the growth of solutions of semilinear diffusion equation with drift. **81j:35064**
- Vaughn, Randy See Lakshmikantham, V., **81c:35064**
- Vernole, Paola See Sinestrari, Eugenio, **81g:35054**
- Villa, Luis T. See Bouillet, Julio E.; et al., **81c:35069**
- Vilka, M. I. Analytic solutions of the Hopf equation, statistical solutions, moment functions corresponding to quasilinear parabolic equations. (Russian) (See **80f:35002**)
- Vivaldi, Maria Agustina See Capuzzo Dolcetta, I., **81k:35024**
- Walter, Wolfgang See Redheffer, Raymond, **81f:35066**
- Weisner, Fred B. Local existence and nonexistence for semilinear parabolic equations in L^p . **81c:35072**
- Yamaguti, Masaya See Mimura, Masayasu; et al., **81a:35050**
- Ziemer, William P. Behavior at the boundary of solutions of quasilinear parabolic equations. **81c:35073**
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- Adler, J. (with Barry, P. A.; Bernal, M. J. M.) Thermal explosion theory for a slab with time-periodic surface temperature variation. (81d:80009)
- Alexiades, Vasilios (with Cannon, John R.) Free boundary problems in solidification of alloys. (81b:35096)
- Andrews, J. G. Mathematical models in welding. (81d:80004)
- Arts, Rutherford The infiltration of lymphocytes and macrophages into a site of infection. (81f:92002)
- Barry, P. A. See Adler, J.; et al., (81d:80009)
- Bel, Jonathan Electrical interactions between parallel nerve fibers: a model and some results. (81g:92005)
- Belonov, V. S. (with Zelenjak, T. I.) Ljapunov stability of the solution of mixed problems for nonlinear parabolic equations. (Russian) (See **80f:35002**)
- Berezovskii, A. A. (with Nitesova, T. M.) Self-similar solutions of the problem of distillation of sea water. (Russian) (81b:76049)
- (with Bopulavskii, A. S.) Exact solutions of nonlinear problems of turbulent diffusion with account taken of the dependence of the diffusion coefficient on the scale, time and impurity concentration. (Russian) (81g:86001)
- Bernández de Castro López, A. Two algorithms for the numerical solution of a quasilinear parabolic equation. (Spanish) (81f:65071)
- Bernal, M. J. M. See Adler, J.; et al., (81d:80009)
- Billing, Gert Due See Hundling, Axel, (81c:92007)
- Böhm, Michael Weak solutions to equations arising in the theory of viscous, incompressible and heat-conducting two-phase flow. (German and Russian summaries) (81k:35129)
- Bopulavskii, A. S. See Berezovskii, A. A., (81g:86001)
- Britton, N. F. See Duffy, M. R.; et al., (81j:92010)
- Bunow, Barry Cellular enzymology: the steady-state kinetics of compartmentalized enzymes. (81c:92003)
- See also Kernevez, J. P.; et al., (81g:35005)
- Caffarelli, Luis A. (with Friedman, Avner) A free boundary problem associated with a semilinear parabolic equation. (81m:35138)
- Cannon, John R. See Alexiades, Vasilios, (81b:35096)
- Capasso, Vincenzo (with Fortunato, Donato) Asymptotic behaviour for a class of nonautonomous semilinear evolution systems and application to a deterministic epidemic model. (81j:35016)
- Chapman, J. Brian Consistency between thermodynamics and the kinetics of a , m , and h in the Hodgkin-Huxley equations. (81f:92009)
- Cope, Davis Stability of limit cycle solutions of reaction-diffusion equations. (81k:80004)
- Cowan, J. D. See Ernestrou, G. B., (81c:92012)
- Danišaj, G. I. (with Skripnik, I. V.) Partial regularity of generalized solutions of quasilinear parabolic systems. (Russian) (81b:35012)
- Ding, Da Fu See Xu, Jing Hua, (81c:92003)
- Duffy, M. R. (with Britton, N. F.; Murray, J. D.) Spiral wave solutions of practical reaction-diffusion systems. (81j:92010)
- Dupuy, M. (with Guilleux, Arthur) Diffusion et osmose sélectives: application au problème de fonctionnement du néphron. (English summary) (81m:92006)
- Džamalov, K. A perturbation of the Navier-Stokes equations in spaces with a mixed norm. (Russian) (81g:35103)
- Ernestrou, G. B. (with Cowan, J. D.) Secondary bifurcation in neuronal nets. (81k:92012)
- Erneux, T. See Herschkowitz-Kaufman, M., (81c:92018)
- Evans, Geoffrey T. Diffusive structure: counterexamples to any explanation? (81c:92011)
- Evans, Lawrence C. Application of nonlinear semigroup theory to certain partial differential equations. (81b:47078)
- Falrén, V. (with Velarde, M. G.) Dissipative structures in a nonlinear reaction-diffusion model with forward inhibition. Stability of secondary multiple steady states. (81g:80011)
- Fortunato, Donato See Capasso, Vincenzo, (81j:35016)
- Friedman, Avner See Caffarelli, Luis A., (81m:35138)
- Galaktionov, V. A. (with Kurdjumov, S. P.; Mihailov, A. P.; Samar'skii, A. A.) On unbounded solutions of the Cauchy problem for the parabolic equation $u_t = \nabla(u^p \nabla u) + u^q$. (Russian) (81j:35018)
- Gariépy, Ronald (with Ziemer, William P.) Removable sets for quasilinear parabolic equations. (81j:35026)
- Guilleux, Arthur See Dupuy, M., (81m:92006)
- Ha, Ki Sik Sur des semi-groupes non linéaires dans les espaces $L^p(\Omega)$. (81b:47007)
- Harčenko, A. P. Existence of generalized and stationary statistical solutions for a system of equations of an electron fluid in a bounded domain. (Russian) (81d:76117)
- Helmenstein, Robert F. (with Overholser, Knowles A.; Reddien, George W.) Multiplicity and stability of the hydrogen-oxygen-nitrogen flame: the influence of chemical pathways and kinetics on transitions between steady states. (81m:80010)
- Herschkowitz-Kaufman, M. (with Erneux, T.) The bifurcation diagram of model chemical reactions. (81c:92018)
- Howard, Louis N. Nonlinear oscillations. (81d:34029)
- Hundling, Axel (with Billing, Gert Due) Secondary bifurcations in spherical reaction-diffusion systems. (81c:92007)
- Joly, G. See Kernevez, J. P.; et al., (81g:35005)
- Kapla, A. K. (with Matkovsky, Bernard J.) Reactive-diffusive system with Arrhenius kinetics: the Robin problem. (81m:80003)
- Kernevez, J. P. (with Joly, G.; Thomas, Daniel; Bunow, Barry) Pattern formation and wave propagation in the s - a system. (81c:35005)
- Kopell, N. Reaction-diffusion equations and pattern formation. (See **80m:92005**)
- Kubiček, Milan See Marek, Miloš, (81c:92008)
- Kuramoto, Yoshiki Instability and turbulence of wavefronts in reaction-diffusion systems. (81f:80011)
- Kurdjumov, S. P. See Galaktionov, V. A.; et al., (81f:35064)
- Lions, Pierre-Louis (with Mercier, B.) Splitting algorithms for the sum of two nonlinear operators. (81g:47070)
- Marchi, Ezio (with Millán, Leopoldo) On the exact solution of differential equations of Hodgkin-Huxley model type. (81k:92015)
- Marek, Miloš (with Kubiček, Milan) Patterns of spatial organization in growth. (81c:92008)
- Matkovsky, Bernard J. See Kapla, A. K., (81m:80003)
- Matsumura, Akitaka (with Nishida, Takaaki) The initial value problem for the equations of motion of viscous and heat-conductive gases. (81g:35108)
- Mercier, B. See Lions, Pierre-Louis, (81g:47070)
- Mihailov, A. P. See Galaktionov, V. A.; et al., (81f:35064)
- Millán, Leopoldo See Marchi, Ezio, (81k:92015)
- de Mottoni, Piero (with Orlandi, E.; Tesi, Alberto) Asymptotic behavior for a system describing epidemics with migration and spatial spread of infection. (81a:92015)
- Murray, J. D. See Duffy, M. R.; et al., (81j:92010)
- Nakao, Mitsuhiro (with Narazaki, Takashi) Existence and decay of solutions of some nonlinear parabolic variational inequalities. (81g:35007)
- Namba, Toshiyuki Density-dependent dispersal and spatial distribution of a population. (81j:92024)
- Narazaki, Takashi See Nakao, Mitsuhiro, (81g:35007)
- Nitesova, T. M. See Berezovskii, A. A., (81b:76049)
- Nishida, Takaaki See Matsumura, Akitaka, (81g:35108)
- Nishikawa, Seiki On the Neumann problem for the nonlinear parabolic equation of

- Eells-Sampson and harmonic mappings. (81k:58031)
- Okubo, Akira ★Diffusion and ecological problems: mathematical models. (81i:92025)
- Orlandi, E. See de Mottoni, Piero; et al. (81a:92015)
- Othmer, H. G. Applications of bifurcation theory in the analysis of spatial and temporal pattern formation. (81i:92063)
- Overholser, Knowles A. See Heinemann, Robert F.; et al. (81m:80010)
- Pao, C. V. Mathematical analysis of enzyme-substrate reaction diffusion in some biochemical systems. (81i:92006)
- (Parker, G. N.) See Okubo, Akira, (81i:92025)
- Pavel, Nicolae H. (with Vrabie, Ioan I.) Semilinear evolution equations with multivalued right-hand side in Banach spaces. (81a:47066)
- Poljanin, A. D. (with Sergeev, Ju. A.) Diffusion to an absorbing particle with mixed kinetics. (81d:80006)
- Rahmas, M. Perturbation solutions arising in heat and mass transfer within a stream in a chemical flow reactor. (81h:80007)
- Reddien, George W. See Heinemann, Robert F.; et al. (81m:80010)
- Rinzel, John Integration and propagation of neuroelectric signals. (See 80m:92005)
- Samar'skii, A. A. See Galaktionov, V. A.; et al. (81j:35018)
- Schumacher, Konrad Obere Schranken für die Ausbreitungsgeschwindigkeit bei parabolischen Funktionaldifferentialgleichungen. (English summary) (81f:35114)
- Sergeev, Ju. A. See Poljanin, A. D. (81d:80006)
- Skripnik, I. V. See Daniljuk, G. I. (81b:35012)
- Teset, Alberto See de Mottoni, Piero; et al. (81a:92015)
- Thomas, Daniel See Kernevez, J. P.; et al. (81g:35005)
- Toma, Illeana Necessary conditions on the values of the stoichiometric factor allowing the appearance of the solitary travelling wave solution in a model concerning the Belousov-Zhabotinskii chemical reaction. (81m:80016)
- Velarde, M. G. See Falcin, V. (81g:80011)
- Vrabie, Ioan I. See Pavel, Nicolae H. (81a:47066)
- Xu, Jing Hua (with Ding, Da Fu) Replication of biological macromolecules and formation of dissipative structures. (81i:92003)
- Yamada, Naoki Estimates on the support of solutions of parabolic variational inequalities in bounded cylindrical domains. (81k:49008)
- Zelenjak, T. I. See Belosnosov, V. S. (See 80f:35002)
- Ziemer, William P. See Gariepy, Ronald, (81j:35026)

35K60 Nonlinear boundary value problems for linear equations and systems; boundary value problems for nonlinear equations and systems

- Ahmedov, A. Ja. An inverse problem for a quasilinear system of parabolic equations in a domain with a moving boundary. (Russian. Azerbaijani and English summaries) 81g:35056
- Aller, K. I. Solvability of a boundary value problem arising in the theory of convection. (Russian) 81m:35073
- Daniljuk, G. I. Second-order quasilinear parabolic equations with divergence principal part. (Russian) 81c:35074
- Fasano, A. (with Primicerio, M.) Cauchy-type free boundary problems for nonlinear parabolic equations. 81b:35026
- Jensen, Robert Smoothness of the free boundary in the Stefan problem with supercooled water. 81f:35057
- Kačur, Jozef Nonlinear parabolic boundary value problems with the time derivative in the boundary conditions. 81f:35068
- Kalantarov, V. K. (with Ladyženskaja, O. A.) Stabilization of the solutions of a certain class of quasilinear parabolic equations as $t \rightarrow \infty$. (Russian) 81i:35085
- Kato, Hisako See Namba, Tokumori, 81g:35058
- Kner, Barry F. The behavior of the support of solutions of the equation of nonlinear heat conduction with absorption in one dimension. 81j:35065a
- Erratum to: "The behavior of the support of solutions of the equation of nonlinear heat conduction with absorption in one dimension". 81j:35065b
- Ladyženskaja, O. A. See Kalantarov, V. K., 81i:35085
- Leung, Anthony Equilibria and stabilities for competing-species reaction-diffusion equations with Dirichlet boundary data. 81c:35067
- Namba, Tokumori (with Kato, Hisako) On the existence of the continuous solution of the problem $u_t = (u^m)_{xx} + f(u)$. 81g:35058
- Pao, C. V. Asymptotic behavior of solutions for a parabolic equation with nonlinear boundary conditions. 81m:35074
- Peregudov, A. N. The second boundary value problem for a class of quasilinear parabolic systems of differential equations. (Russian) 81c:35068
- Primicerio, M. See Fasano, A., 81b:35026
- Schiavino, Andrea On a Volterra diffusion system. (Italian summary) 81b:35046
- Šepolov, N. N. A boundary value problem for a third-order parabolic equation. (Russian) 81i:35086
- Teo, K. L. Existence and uniqueness of solutions of system governed by second-order quasilinear integro-partial differential equations of parabolic type. 81j:35066

secondary classifications:

- Amundson, Neal R. (with Mon, Eduardo) Diffusion and reaction in carbon burning. (81m:80009)
- Baklanovskaja, V. F. Comparison of exact and approximate solutions of systems of equations of parabolic type with degeneracy. (Russian) (81k:65114)
- Bénilan, Philippe (with Picard, Colette) Quelques aspects non linéaires du principe du maximum. (81i:47067)
- Borodin, A. V. Differentiability with respect to the parameter of the solutions of nonlinear loaded boundary value problems for second-order partial differential equations. II. (81h:35001)
- Calderón, Alberto P. On an inverse boundary value problem. (81k:35160)
- Gihman, I. I. A boundary value problem for a stochastic parabolic equation. (Russian) (81d:60062)

- Hačstjan, A. G. Investigation of stability of steady-state and periodic solutions of nonlinear parabolic systems. (Russian. English summary) (81k:35078)
- Kapila, A. K. Reactive-diffusive system with Arrhenius kinetics: dynamics of ignition. (81m:80011)
- Kölbel, Klaus Eine inverse Aufgabe für Wärmepotentiale. (81h:31012)
- Mon, Eduardo See Amundson, Neal R., (81m:80009)
- de Mottoni, Piero (with Rothe, F.) Convergence to homogeneous equilibrium state for generalized Volterra-Lotka systems with diffusion. (81b:92008)
- Picard, Colette See Bénilan, Philippe, (81i:47067)
- Redheffer, Raymond (with Walter, Wolfgang) Comparison theorems for parabolic functional inequalities. (81i:35164)
- Rothe, F. See de Mottoni, Piero, (81b:92008)
- Walter, Wolfgang See Redheffer, Raymond, (81i:35164)
- Wilkes, N. S. Continuous dependence and instability in linear thermoelasticity. (81d:73104)

35K65 Equations and systems of degenerate type

- Antonev, S. N. The character of perturbations described by solutions of multidimensional degenerate parabolic equations. (Russian) 81f:35069
- Chan, C. Y. (with Young, E. C.) Sturmian theorems for degenerate parabolic inequalities. 81c:35069
- Fisch, Nathaniel (with Kruskal, Martin D.) Separating variables in two-way diffusion equations. 81m:35075
- Gonczewicz, Jan On the existence of weak solutions of a boundary value problem for a certain degenerate parabolic equation. (Russian summary) 81c:35075
- Kruskal, Martin D. See Fisch, Nathaniel, 81m:35075
- Kupcov, L. P. On parabolic means. (Russian) 81g:35059
- Madame-Tort, Monique Comportement des solutions d'une classe d'équations paraboliques non linéaires dégénérées. (English summary) 81a:35051
- Maugeri, Antonio On a class of singular parabolic equations. (Italian. English summary) 81i:35087
- Nakano, Yoshisuke Propagating velocity of singularity occurring in certain degenerate parabolic equations. 81j:35060
- Nambu, Tokumori A quasilinear degenerate parabolic equation. 81b:35047
- Novikov, V. A. Existence and nonexistence theorems for a class of equations of variable type. (Russian) 81j:35067
- Young, E. C. See Chan, C. Y., 81c:35069

secondary classifications:

- Himčenko, B. N. See Kamynin, L. I., (81b:35043)
- Kamynin, L. I. (with Himčenko, B. N.) The uniqueness of the solution to the Cauchy problem for a second-order parabolic equation with nonnegative characteristic form. (Russian) (81b:35043)
- Pagan, Carlo Domenico On elliptic-parabolic equations of second order and approximating integral equations. (Russian summary) (81d:35035)
- Soltanov, K. N. Solvability of some nonlinear parabolic problems. (Russian) (81g:35048)

35K70 Ultraparabolic, pseudoparabolic problems

- Kuttler, J. R. (with Sigillito, Vincent G.) Explicit L_2 inequalities for parabolic and pseudoparabolic equations with Neumann boundary conditions. 81c:35070
- Malorčičko, V. O. On the first boundary value problem for a class of equations with nonnegative characteristic form. (Russian) 81d:35044
- Sigillito, Vincent G. See Kuttler, J. R., 81c:35070
- Soltanov, K. N. Smooth solvability of some quasielliptic problems. (Russian. Azerbaijani and English summaries) 81i:35088
- secondary classifications:
- Löffler, Heinrich On the analytic theory of pseudoparabolic systems. (81b:31008)
- Matahashi, Tomomi (with Tsutsumi, Masayoshi) Initial value problem for an abstract differential equation in a Hilbert space. (81c:34056)
- See also Tsutsumi, Masayoshi, (81j:34114)
- Tartar, Luc Homogénéisation et compacité par compensation. (81e:73012)
- Tsutsumi, Masayoshi (with Matahashi, Tomomi) A certain class of singular nonlinear pseudoparabolic equations. (81j:34114)
- See also Matahashi, Tomomi, (81c:34056)
- White, L. W. Controllability properties of pseudoparabolic boundary control problems. (81h:93042)
- Yasue, Kunio See Zambrini, J.-C., (81e:82012)
- Zambrini, J.-C. (with Yasue, Kunio) Thermal mechanics: a quantum mechanical analogue of nonequilibrium statistical thermodynamics. (81e:82012)

35K85 Unilateral problems; variational inequalities [See also 35R35, 49A29.]

35K99 None of the above, but in this section

- Čobanov, Georgi I. On the Cauchy problem for a class of quasilinear degenerate parabolic and ultraparabolic equations. 81a:35052
- Drenska, N. T. A problem of conjugation of two parabolic equations. (Russian) 81k:35083
- Gilbert, Robert P. A Lewy-type reflection principle for pseudoparabolic equations. 81m:35076
- Lasiecka, Irena Unified theory for abstract parabolic boundary problems—a semigroup approach. 81m:35077
- Lumer, G. Connecting of local operators and evolution equations on networks. 81m:35078

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- Bellomo, Nicola Mathematical modeling of the evolution equation of the dynamics of a large class of stochastic systems with kinetic interaction. (81m:82001)
 Ding, Xia Xi Some results on $L_p(\nu)$ estimates. (Chinese) (81e:46021a)
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 Gol'nev, I. I. Approximation of the solution to some boundary value and mixed problems. (Russian) (81b:35002)
 Luo, Pei Zhu See Ding, Xia Xi, (81e:46021b)
 Tesel, Alberto Approximation results for Volterra integro-partial differential equations. (81m:45017)
 Triggiani, Roberto Boundary feedback stabilizability of parabolic equations. (81m:35020)

35LXX Hyperbolic equations and systems [See also 58G16.]

35L05 Wave equation

- Amerio, Luigi Unilateral problems for the vibrating string equation. 81e:35071
 Bardos, Claude (with Guillot, Jean-Claude; Ralston, James) Relation de Poisson pour l'équation des ondes dans un ouvert non borné. (English summary) 81g:35061
 Cabannes, Henri (with Haraux, Alain) Mouvements presque-périodiques d'une corde vibrante en présence d'un obstacle rectiligne. (English summary) 81k:35084
 Darkhosh, Teymour Discontinuities of the Green functions across the characteristic surfaces of field equations. 81d:35045
 Demenin, O. M. Random wave fields in stochastically inhomogeneous media. (Russian) 81e:35072
 Dikason, V. M. Solution by the reflection method of some external boundary value problems for the wave equation on a sphere. (Russian) 81j:35068
 Duika, N. A. A uniqueness theorem for the Darboux problem. (Russian) 81d:35046
 Ekhara, Yukiyoshi Nonlinear wave equations with variable coefficients. 81k:35085
 Guillot, Jean-Claude See Bardos, Claude; et al., 81g:35061
 Haraux, Alain See Cabannes, Henri, 81k:35084
 Heine, Albert E. The fundamental solution for the axially symmetric wave equation. 81i:35089
 The fundamental solution for the axially symmetric wave equation. II. 81i:35089
 Itawa, Mitsuru Mixed problems for the wave equation. IV. The existence and the exponential decay of solutions. 81i:35090
 On the mixed problems for the wave equation in an interior domain. II. 81k:35086
 Irvli, V. Ja. Propagation of the singularities of the solution of a wave equation in a domain that contains corner points. (Russian) 81j:35069
 Jahn, V. G. The problem of determining the coefficient and initial data of a hyperbolic equation. (Russian) 81m:35079
 John, Fritz Nonexistence of global solutions of $\square u = F(u)$ and of $\square v = F(v)u$ in three space dimensions. 81g:35062
 Marshall, Bernard (with Strauss, Walter Alexander; Wainger, Stephen) Estimates from L^p to its dual for the Klein-Gordon equation. 81a:35053
 (with Strauss, Walter Alexander; Wainger, Stephen) L^p - L^q estimates for solutions of the Klein-Gordon equation. 81m:35080
 Matilla Martin, Miguel (with Peral Alonso, Juan) Estimations L^p pour l'équation de Klein-Gordon. (English summary) 81k:35087
 Mefnik, Z. O. Example of a nonclassical boundary value problem for the vibrating string equation. (Russian) 81m:35081
 Muravei, L. A. Asymptotic behavior for large time values of the solutions of exterior boundary value problems for the wave equation in two space variables. (Russian) 81k:35088
 Peral Alonso, Juan See Matilla Martin, Miguel, 81k:35087
 L^p estimates for the wave equation. 81k:35089
 Rabinowitz, Paul H. A priori bounds for a semilinear wave equation. (See 80c:34002)
 Ralston, James See Bardos, Claude; et al., 81g:35061
 Schatzman, Michelle A hyperbolic problem of second order with unilateral constraints: the vibrating string with a concave obstacle. 81d:35047
 Schenk, Dieter Integrodifferentialgleichungen zu hyperbolischen Cauchyproblemen in Räumen von Ultradistributionen. 81k:35090
 Schneider, Manfred Maximum-Aussagen für das Cauchy-Problem spezieller hyperbolischer Differentialgleichungen im \mathbb{R}^3 . 81d:35048
 Soga, Hideo Mixed problems for the wave equation with a singular oblique derivative. 81b:35048
 Strass, Walter Alexander See Marshall, Bernard; et al., 81a:35053 and Marshall, Bernard; et al., 81m:35080
 Temirbulatov, S. I. The mixed problem for the wave equation. (Russian) 81e:35073
 Vostrova, L. E. Boundary value problems for a wave equation in noncharacteristic domains. (Russian) 81k:35027
 Wainger, Stephen See Marshall, Bernard; et al., 81a:35053 and Marshall, Bernard; et al., 81m:35080
 Wakabayashi, Seichiro Propagation of singularities of fundamental solutions of hyperbolic mixed problems. 81i:35091
 Wunsch, Volkmar Selbstadjungierte Huygenssche Differentialgleichungen zweiter Ordnung für nichtskalare Spintensorfelder. 81g:35063

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- Abdul-Latif, Ali I. The Dirichlet boundary value problem for the system $u_{x_j} = 0, j \neq i$. (81e:35074)
 Barsukov, K. A. (with Grigorjan, G. A.) Structure of a field in resonators with moving boundary. (Russian. Armenian and English summaries) (81m:78026)
 Bojarski, Norbert N. One-dimensional direct and inverse scattering in causal space. (81g:78022)
 Buchen, P. W. (with Haddon, R. A. W.) Diffraction of a plane pulse by thin arbitrarily shaped obstacles. (81d:78019)

- Choquet-Bruhat, Yvonne (with Christodoulou, Demetrios; Francaviglia, Mauro) On the wave equation in curved spacetime. (81j:58024)
 Christodoulou, Demetrios See Choquet-Bruhat, Yvonne; et al., (81j:58024)
 Francaviglia, Mauro See Choquet-Bruhat, Yvonne; et al., (81j:58024)
 Grigorjan, G. A. Allowance for losses in a wall of a resonator having a moving boundary. (Russian. Armenian and English summaries) (81g:78019)
 See also Barsukov, K. A., (81m:78026)
 Haddon, R. A. W. See Buchen, P. W., (81d:78019)
 Lo, Chi Young Expansions in terms of generalized Helmholtz polynomials and associated functions. (81k:35018)
 Mawhin, Jean Periodic solutions of nonlinear dispersive wave equations. (81b:35003)
 Menzala, Gustavo Perla On global solutions of a quasilinear hyperbolic equation. (81e:35081)
 Miyatake, S. Le problème mixte des équations des ondes et applications. (81f:35070)
 Muravei, L. A. Asymptotic behavior for large values of time of the solutions of exterior boundary problems for the wave equation with two space variables. (Russian) (81i:35020)
 Papi Frossali, Gloria On the stability of the Dirichlet problem for the vibrating string equation. (81i:35157)
 Rañada, Antonio F. (with Sierra Rodero, Germán) Causality of wave equation and invariance of its hyperbolicity conditions. (81j:81036)
 Sabatier, Pierre C. Around the classical string problem. (81k:70013)
 Schatzman, Michelle Un problème hyperbolique du 2ème ordre avec contrainte unilatérale: la corde vibrante avec obstacle ponctuel. (English summary) (81k:70015)
 Sierra Rodero, Germán See Rañada, Antonio F., (81j:81036)
 Whitham, G. B. ★ Lectures on wave propagation. (81i:76010)

35L10 Second-order equations, general

- Arizanyh, I. S. Quasianalytic solutions of the wave equation. (Russian) 81k:35091
 Efimov, N. V. Estimates of the dimensions of domains of regularity of solutions of certain equations. (Russian) (See 80f:35002)
 Hsiang, Wu Teh (with Kwong, Man Kam) A comparison theorem for the first nodal line of the solutions of quasilinear hyperbolic equations with nonincreasing initial values. 81i:35092
 Ivanov, L. A. Huygens' principle for equations splitting into factors. (Russian) 81e:35076
 Kwong, Man Kam See Hsiang, Wu Teh, 81i:35092
 Levitan, B. M. The structure (in the small) of the fundamental solution of a hyperbolic equation and the asymptotic behavior of the spectral function. (Russian) (See 80f:35002)
 Naval, Saïed Ahmed Sherif Mixed problem for hyperbolic equations in domains with nonsmooth boundary. (Russian. English summary) 81j:35070
 Rauch, Jeffrey (with Reed, Michael C.) Propagation of singularities for semilinear hyperbolic equations in one space variable. 81k:35028
 Reed, Michael C. See Rauch, Jeffrey, 81k:35028
 Umarov, H. G. The Riemann method for some hyperbolic equations with operator coefficients. (Russian) 81m:35082

secondary classifications:

- Arya, J. C. (with Bojadziev, G. N.) Damped oscillating systems modeled by hyperbolic differential equations with slowly varying coefficients. (German summary) (81e:35022)
 Bojadziev, G. N. See Arya, J. C., (81e:35022)
 Dickey, R. W. Stability of periodic solutions of the nonlinear string. (81m:70030)
 Haimo, Deborah Tepper Homogeneous generalized temperatures. (81h:80013)

35L15 Second-order equations, initial value problems

- Cagnac, Francis Problème de Cauchy sur un cône caractéristique. (English summary) 81m:35083
 Colombini, Ferruccio (with De Giorgi, Ennio; Spagnolo, Sergio) Sur les équations hyperboliques avec des coefficients qui ne dépendent que du temps. 81e:35077
 De Giorgi, Ennio See Colombini, Ferruccio; et al., 81e:35077
 Igari, Katsuji Cauchy problem for weakly hyperbolic equations of second order. 81i:35093
 Rassias, John Michael A maximum principle in \mathbb{R}^3 . 81k:35092
 Sadowski, Wawrzyniec Boundedness of solutions of some nonlinear hyperbolic equations. 81c:35078
 Schenk, Dieter Hyperbolische Gleichungen in Ultradistributionen und singuläre Schrödingeroperatoren. 81k:35094
 Spagnolo, Sergio See Colombini, Ferruccio; et al., 81e:35077
 Tarama, Sigeo Un exemple dans le problème de Cauchy pour les équations faiblement hyperboliques. 81a:35054
 Yamamoto, Kazuhiro Some examples of the C^∞ well-posed Cauchy problem. 81m:35084
 Zaiceva, O. V. Well-posedness of the Cauchy problem for certain degenerate hyperbolic equations. (Russian) 81g:35064

secondary classifications:

- Aliev, B. A. The Cauchy problem for differential operator equations of hyperbolic type. (Russian. Azerbaijani and English summaries) (81k:34048)
 Aliev, I. A. Solvability "in the large" of the Cauchy problem for quasilinear evolutionary equations and hyperbolic partial differential equations. (Russian) (81c:34053)
 Geel, R. ★ Singular perturbations of hyperbolic type. (81c:35003)
 (with de Jager, E. M.) Hyperbolic singular perturbations of nonlinear first order differential equations. (81i:35017)
 de Jager, E. M. See Geel, R., (81i:35017)
 Kakita, Takao (with Nishihara, Kenji; Tamamura, Chiharu) Time decay and scattering for some nonlinear wave equation. (81k:35079)
 Madame-Tort, Monique Singular perturbations for a class of quasilinear hyperbolic

- equations. (French summary) (81c:35016)
 Nishihara, Kenji See Kakita, Takao; et al. (81f:35079)
 Tamamura, Chikaru See Kakita, Takao; et al. (81f:35079)

35L20 Second-order equations, boundary value problems

- Abdul-Latif, Ali I. The Dirichlet boundary value problem for the system $u_{x_j} = 0$, $j \neq i$. (81c:35074)
 Aliev, N. A. (with Guseinov, E. A.) Solution of a mixed problem. (Russian. Azerbaijani and English summaries) 81a:35055
 Baranovskii, F. T. A boundary value problem for a hyperbolic equation with a degenerate principal part. (Russian) 81a:35056
 Chen, Gong Energy decay estimates and exact boundary value controllability for the wave equation in a bounded domain. 81k:35093
 Gaiduk, S. I. (with Pysko, I. A.) A mixed problem for a hyperbolic system of second-order equations with discontinuities in the initial conditions. (Russian) 81d:35095
 Guseinov, E. A. See Aliev, N. A., 81a:35055
 Haimovici, Adolf On "bilocal" and periodicity problems for hyperbolic partial differential equations. 81f:35096
 Kimura, Kyoko A mixed problem for weakly hyperbolic equations of second order. 81d:35049
 Miyatake, S. Le problème mixte des équations des ondes et applications. 81f:35070
 Naimiev, A. M. The contemporary state of the theory of boundary value problems for second-order equations of hyperbolic and mixed type in higher-dimensional domains. (Russian) (See 80f:35002)
 Peršan, A. V. Behavior of the solution of the first mixed problem for a hyperbolic equation as $t \rightarrow \infty$. (Russian) 81k:35094
 Pysko, I. A. See Gaiduk, S. I., 81f:35095
 Ralston, James Diffraction by convex bodies. 81d:35050
 Sazonov, A. Ju. The Fourier method for certain singular hyperbolic equations. (Russian) 81j:35071
 Shiota, Taira On a parametrix for the hyperbolic mixed problem with diffractive lateral boundary. II. 81c:35079
 Soga, Hideo Mixed problems in a quarter space for the wave equation with a singular oblique derivative. 81k:35095
 Uesaka, Hiroshi The total energy decay of solutions for the wave equation with a dissipative term. 81f:35071

secondary classifications:

- Burtačenko, V. P. (with Sidenko, M. I.) Solution by an approximation method of a Cauchy problem for a hyperbolic equation. (Russian) (81c:65047)
 Chow, Shui Nee Periodic solutions of nonlinear autonomous hyperbolic equations. (81m:35018)
 Frolov, V. P. (with Serebrjany, E. M.) Quantum effects in systems with accelerated mirrors. (81c:81067)
 Lebedev, P. A. (with Matveev, P. N.; Morozov, A. V.) Equation of motion of a train as a viscoelastic one-dimensional medium and its solution. (Russian) (81f:73005)
 Matveev, P. N. See Lebedev, P. A.; et al. (81f:73005)
 Melrose, Richard B. Differential boundary value problems of principal type. (81i:58043)
 Morozov, A. V. See Lebedev, P. A.; et al. (81f:73005)
 Serebrjany, E. M. See Frolov, V. P., (81c:81067)
 Sidenko, M. I. See Burtačenko, V. P., (81c:65047)
 Soga, Hideo Mixed problems for the wave equation with a singular oblique derivative. (81b:35048)

35L25 Higher-order equations, general

- Chaillou, Jacques ★ Hyperbolic differential polynomials and their singular perturbations. 81f:35072
 Gindikin, S. G. See Volevič, L. R., 81f:35097
 Igari, Katsuji Cauchy problem for hyperbolic differential operators with double characteristic roots. 81f:35073
 Ivanov, L. A. See Kiprijanov, I. A., 81h:35029 and Kiprijanov, I. A., 81k:35096
 Kazarjan, G. G. Hyperbolic operators with a given higher-order part. (Russian) 81g:35065
 Kiprijanov, I. A. (with Ivanov, L. A.) The Hadamard method for some classes of hyperbolic equations. (Russian) 81h:35029
 (with Ivanov, L. A.) Fundamental solutions of homogeneous B -hyperbolic equations. (Russian) 81k:35096
 Menzala, Gustavo Perla On classical solutions of a quasilinear hyperbolic equation. 81c:35075
 (Nirenberg, J. W.) See Chaillou, Jacques, 81f:35072
 Smereka, I. P. Application of special Atab-functions to the construction of the periodic solution of a nonlinear wave equation. (Russian) 81d:35051
 Volevič, L. R. (with Gindikin, S. G.) Solvability of a mixed problem for $(2B+1)$ -hyperbolic equations. (Russian) 81f:35097

secondary classifications:

- Aldiev, S. A. The Cauchy problem for a $2n$ th order equation. (Russian) (81b:35010)
 Rauch, Jeffrey (with Reed, Michael C.) Propagation of singularities for semilinear hyperbolic equations in one space variable. (81b:35028)
 Reed, Michael C. See Rauch, Jeffrey, (81b:35028)

35L30 Higher-order equations, initial value problems

- Alber, H.-D. Reflection of singularities of solutions to the wave equation and the leading singularity of the scattering kernel. 81m:35085
 Du, Xin-Hua A suggestion on some well-posed domains of the Dirichlet problem for

- third-order full hyperbolic equations. (Chinese) 81j:35072
 Ivanov, L. A. Huygens' principle in an even-dimensional space for some equations with singularities. (Russian) 81c:35076
 Kondrat'ev, V. A. Solution of a hyperbolic Cauchy problem in the presence of characteristic points of the initial surface. (Russian) 81a:35057
 Maz'ja, V. G. See Vainberg, B. R., 81g:35067
 Orozko, Ju. B. Finite propagation rate and essential selfadjointness of certain differential operators. (Russian) 81g:35066
 Sakamoto, Reiko On a sufficient condition for well-posedness of weakly hyperbolic Cauchy problems. 81f:35098
 Taniguchi, Kazuo (with Tozaki, Yoshiharu) A hyperbolic equation with double characteristics which has a solution with branching singularities. 81k:35097
 Tokita, Takeshi Initial-boundary value problems of fourth order hyperbolic equation. 81c:35080
 Tozaki, Yoshiharu See Taniguchi, Kazuo, 81k:35097
 Vainberg, B. R. (with Maz'ja, V. G.) A characteristic Cauchy problem for a hyperbolic equation. (Russian) 81g:35067
 Wakabayashi, Seichiro Propagation of singularities for hyperbolic operators with constant coefficient principal part. 81b:35049
 Yamamoto, Kazuhiro The Cauchy problem for hyperbolic operators with variable multiple characteristics. 81g:35068
 Zaiceva, O. V. On the well-posedness of the Cauchy problem for a model equation with fourfold characteristics. (Russian) 81k:35098

secondary classifications:

- Hersh, Reuben (with Steinberg, Stanley) Hyperbolic equations with coefficients in an enveloping algebra. (81c:34051)
 Lu, Zhu Jia See Mai, Ming Cheng, (81m:35007)
 Mai, Ming Cheng (with Lu, Zhu Jia) Uniqueness in Cauchy problems for linear partial differential equations. (Chinese. English summary) (81m:35007)
 Menzala, Gustavo Perla On global classical solutions of a nonlinear wave equation. (81g:35075)
 Nishitani, Tatsuo On the \mathcal{E} -well posedness for the Goursat problem with constant coefficients. (81k:35029)
 Pecher, Hartmut Existenzsätze für reguläre Lösungen semilinearer Wellengleichungen. (81g:35076)
 Steinberg, Stanley See Hersh, Reuben, (81c:34051)

35L35 Higher-order equations, boundary value problems

- Dedušev, A. V. See Korobeinik, Ju. F., 81g:35069
 Eskin, Gregory Parametrix and propagation of singularities for the interior mixed hyperbolic problem. 81c:35077
 Korobeinik, Ju. F. (with Dedušev, A. V.) Solution of a mixed problem by the Fourier method. (Russian) 81g:35069
 Oganessian, G. R. Mixed problems for weakly hyperbolic equations with two independent variables. (Russian. Armenian and English summaries) 81i:35099
 Poliščuk, V. N. A problem with nonlocal boundary conditions for hyperbolic equations with variable coefficients. (Russian) 81f:35074
 Shibata, Yoshihiro A characterization of the hyperbolic mixed problems in a quarter space for differential operators with constant coefficients. 81k:35100

secondary classifications:

- Barvin'skii, A. F. See Sokil, B. I., (81c:35023)
 Cesalli, V. I. A problem with nonlocal boundary conditions for certain abstract hyperbolic equations. (Russian) (81a:34050)
 Sokil, B. I. (with Barvin'skii, A. F.) Asymptotic solution of a nonlinear boundary value problem. (Russian. English summary) (81c:35023)
 Starkov, A. S. Asymptotic solution of two-scale problems of wave propagation in the presence of points of local degeneracy. (Russian. English summary) (81a:35014)

35L40 First-order systems, general

- Ivril', V. Ja. Wave fronts of solutions of boundary value problems for symmetric hyperbolic systems. I. The fundamental theorem. (Russian) 81m:35086a
 Wave fronts of solutions of boundary value problems for symmetric hyperbolic systems. II. Systems with characteristics of constant multiplicity. (Russian) 81m:35086b
 Propagation of singularities of solutions of symmetric hyperbolic systems. 81j:35073
 Wave fronts of solutions of boundary value problems for symmetric hyperbolic systems. III. Systems with characteristics of variable multiplicity. (Russian) 81m:35086c
 Kitahara, Kiyosi Asymptotic wave functions and energy distributions for symmetric hyperbolic systems of first order. 81g:35070
 Nommes, J. C. Paramétrix du problème de Cauchy pour une classe de systèmes hyperboliques à caractéristiques réelles involutives de multiplicité variable. 81d:35052
 Romanov, V. G. Inverse problems for first-order hyperbolic systems. (Russian) (See 80f:35002)
 Vaillant, J. Systèmes hyperboliques à multiplicité constante. 81i:35101

secondary classifications:

- Ahiev, S. S. The general form of linear bounded functionals in an anisotropic space of L . Sobolev type. (Russian. Azerbaijani and English summaries) (81d:46031)
 Kreiss, Heinz-Otto Numerical methods for hyperbolic partial differential equations (81b:65002)

35L45 First-order systems, initial value problems

- Cinquini-Cibrario, Maria A complement to the study of partial differential equations of hyperbolic type. II. (Italian) 81c:35081
- Krylov, A. L. (with Lifsch, A. E.) On hyperbolic systems with nonpropagating disturbances. (Russian) 81h:35030
- Kumano-go, Hitoshi (with Taniguchi, Kazuo) Fourier integral operators of multiphase and the fundamental solution for a hyperbolic system. 81g:35071
- Lifsch, A. E. See Krylov, A. L. 81h:35030
- Petrov, Vesselin M. Application of Fourier integral operators concerning hyperbolic operators with multiple characteristics. 81a:35058
- Rauch, Jeffrey Boundary value problems as limits of problems in all space. 81d:35053
- Ruggieri, Tommaso On the integration of a quasilinear hyperbolic system of two equations with two independent completely exceptional variables. (Italian. English summary) 81j:35074
- Taniguchi, Kazuo See Kumano-go, Hitoshi. 81g:35071
- Taylor, Michael E. First-order hyperbolic systems with a small viscosity term. 81c:35078
- Uryu, Hitoshi The Cauchy problem for hyperbolic systems with variable multiple characteristics. 81h:35099

secondary classifications:

- Peradzyński, Zbigniew Asymptotic decay of solutions of hyperbolic systems into simple waves. (Russian summary) (81j:35013)
- Yagi, Atsushi On a class of linear evolution equations of "hyperbolic" type in reflexive Banach spaces. (81a:34055)

35L50 First-order systems, boundary value problems

- Avila, G. S. S. (with Costa, D. G.) Asymptotic properties of general symmetric hyperbolic systems. 81c:35079
- Costa, D. G. See Avila, G. S. S. 81c:35079
- Godunov, S. K. Energy integrals of variational problems. (Russian) 81i:35102
- Gonzburger, Max D. (with Plemmons, Robert J.) Energy-conserving norms for the solution of hyperbolic systems of partial differential equations. 81a:35059
- Plemmons, Robert J. See Gonzburger, Max D. 81a:35059
- Radzikowski, Jerzy Untersuchung der Beschränktheit der Lösungen eines inhomogenen hyperbolischen Systems. 81i:35103

secondary classifications:

- Rauch, Jeffrey Boundary value problems as limits of problems in all space. (81d:35053)

35L55 Higher-order hyperbolic systems

- Gindikin, S. G. See Volević, L. R. 81c:35080
- Goldstein, Jerome A. (with Sandefur, James T., Jr.) Equipartition of energy for symmetric hyperbolic systems. 81a:35060
- Haribegović, S. S. The characteristic problem for second-order hyperbolic systems with constant coefficients. (Russian) 81a:35061
- A characteristic problem for linear nonstrictly hyperbolic systems. (Russian. Georgian and English summaries) 81f:35075
- Kajitani, Kunihiko Cauchy problem for nonstrictly hyperbolic systems. 81i:35104
- Kreis, Heinz-Otto Problems with different time scales for partial differential equations. 81c:35082
- Lancaster, Kirk E. (with Petersen, Bent E.) Systems of partial differential operators with fundamental solutions supported by a cone. 81d:35054
- Petersen, Bent E. See Lancaster, Kirk E. 81d:35054
- Sandefur, James T., Jr. See Goldstein, Jerome A. 81a:35060
- Volević, L. R. (with Gindikin, S. G.) A mixed problem for $(2\delta + 1)$ -hyperbolic equations of higher order with respect to time. (Russian) 81c:35080

secondary classifications:

- Kondrat'ev, V. A. Solution of a hyperbolic Cauchy problem in the presence of characteristic points of the initial surface. (Russian) (81a:35057)
- Zaburav, S. V. Singular optimal controls in systems of hyperbolic equations. (Russian) (81f:49021)

35L60 First-order nonlinear equations and systems

- Battle, Guy A., III A generalization of small data techniques and its application. 81g:35072
- Cinquini-Cibrario, Maria On systems of partial differential equations of hyperbolic type. (Italian. English summary) 81h:35031
- On some questions concerning systems of quasilinear partial differential equations in two independent variables. (Italian) 81a:35062
- Dalermos, C. M. Asymptotic behavior of solutions of hyperbolic balance laws. 81g:35073
- van Groesen, E. W. C. Unidirectional wave propagation in one-dimensional first-order Hamiltonian systems. 81g:35074
- Klainerman, Sergiu Global existence for nonlinear wave equations. 81b:35050
- Liu, Tai Ping Quasilinear hyperbolic systems. 81b:35051
- Menzala, Gustavo Perla On global solutions of a quasilinear hyperbolic equation. 81c:35081
- On global classical solutions of a nonlinear wave equation. 81g:35075
- Nizicki, Shyosh On a representation of solutions of the Cauchy problem for a semilinear hyperbolic system (I). 81d:35055
- Pecher, Hartmut Existenzsätze für reguläre Lösungen semilinearer Wellengleichungen. 81g:35076

secondary classifications:

- Blagovestnik, A. S. Inverse problems for systems of hyperbolic type. (Russian) (81c:35119)
- Brézis, Haim (with Coron, Jean-Michel; Nirenberg, Louis) Free vibrations for a nonlinear wave equation and a theorem of P. Rabinowitz. (81h:35013)
- Coron, Jean-Michel See Brézis, Haim; et al. (81h:35013)
- John, Fritz Nonexistence of global solutions of $\square u = F(u)$ and of $\square v = F(v)u$ in three space dimensions. (81g:35062)
- Majda, Andrew (with Ralston, James) Discrete shock profiles for systems of conservation laws. (81i:35106)
- Nirenberg, Louis See Brézis, Haim; et al. (81h:35013)
- Pazin, G. N. (with Tupčiev, V. A.) Conditions on a discontinuity for generalized self-similar solutions of quasilinear systems. (Russian) (81c:35082)
- Pecher, Hartmut Ein nichtlinearer Interpolationssatz und seine Anwendung auf nichtlineare Wellengleichungen. (81i:46039)
- Ralston, James See Majda, Andrew. (81i:35106)
- Ruggieri, Tommaso On the integration of a quasilinear hyperbolic system of two equations with two independent completely exceptional variables. (Italian. English summary) (81j:35074)
- Tupčiev, V. A. See Pazin, G. N. (81c:35082)

35L65 Conservation laws [See also 76-XX.]

- Bardos, Claude (with le Roux, A. Y.; Nédélec, J.-C.) First order quasilinear equations with boundary conditions. 81b:35052
- Belov, Ju. A. See Curkov, V. I. 81g:35077
- Chang, Peter H. On the characterizations of the breakdown points of quasilinear wave equations. 81i:35105
- Conlon, Joseph G. Asymptotic behavior for a hyperbolic conservation law with periodic initial data. 81b:35053
- On a theorem of Conley and Smoller. 81m:35087
- Curkov, V. I. (with Belov, Ju. A.) Unboundedness of solutions of quasilinear hyperbolic systems that do not admit invariants. (Russian. English summary) 81g:35077
- DiPerna, R. J. The structure of solutions to hyperbolic conservation laws. 81h:35100
- Eiseman, P. R. (with Stone, Alexander P.) Conservation laws of fluid dynamics—a survey. 81f:35076
- Fosdick, R. L. (with MacSithigh, G. P.) Shearing motions and the formation of shocks in an elastic circular tube. 81i:35106
- Gu, Chao Hao Boundary value problems for quasilinear positive symmetric systems and their applications to mixed equations. (Chinese. English summary) 81c:35083
- Some global solutions of quasilinear hyperbolic symmetric systems and their asymptotic behavior. (Chinese. English summary) 81c:35084
- Herrmann, Leopold (with Štěrý, Milan) Periodic solutions of weakly nonlinear wave equations in unbounded intervals. 81i:35107
- Kirilenko, S. V. Four boundary value problems with shift in unbounded domains for the Euler-Darboux equation with positive parameters. (Russian) 81b:35054
- Two boundary value problems with shift $\Sigma'a$ and $\Sigma'(ax)$. (Russian) 81b:35055
- Krishnan, E. V. An appendix to the paper: "Approximation of the perturbation equations of a quasi-linear hyperbolic system in the neighborhood of a bicharacteristic" [J. Math. Anal. Appl. 50 (1975), 470-482; MR 52 #11342] by Phoolan Prasad. 81h:35032
- Lax, Peter D. On the notion of hyperbolicity. 81f:35077
- MacSithigh, G. P. See Fosdick, R. L. 81i:35106
- Majda, Andrew (with Ralston, James) Discrete shock profiles for systems of conservation laws. 81i:35106
- Makusina, R. V. See Volkodavov, V. F. 81b:35057
- Mock, M. S. Systems of conservation laws of mixed type. 81m:35088
- Nédélec, J.-C. See Bardos, Claude; et al. 81b:35052
- Novov, V. A. Solution of a problem of Cauchy type for an equation of hyperbolic type. (Russian) 81b:35056
- Pazin, G. N. (with Tupčiev, V. A.) Conditions on a discontinuity for generalized self-similar solutions of quasilinear systems. (Russian) 81c:35082
- (Prasad, Phoolan) See Krishnan, E. V. 81h:35032
- Prikarpatskii, A. K. An exactly solvable system of nonlinear differential equations. (Russian) 81f:35078
- Rabinowitz, Paul H. Free vibrations for a semilinear wave equation. 81i:35109
- Ralston, James See Majda, Andrew. 81i:35106
- le Roux, A. Y. See Bardos, Claude; et al. 81b:35052
- Stanomir, D. (with Topală, A.) Conservation laws for hyperbolic systems. An operator approach. (French and German summaries) 81i:35110
- Štěrý, Milan See Herrmann, Leopold. 81i:35107
- Stone, Alexander P. See Eiseman, P. R. 81i:35076
- Topală, A. See Stanomir, D. 81i:35110
- Tupčiev, V. A. See Pazin, G. N. 81c:35082
- Volkodavov, V. F. (with Makusina, R. V.) Uniqueness and existence of the solutions to a problem with shift in a bounded domain for the Euler-Darboux equation. (Russian) 81b:35057
- Wang, Jing Hua Decay of solutions of a conservation law. 81m:35089
- Xiao, Ling (with Zhang, Tong) The Riemann problem for general 2×2 conservation laws. (Chinese) 81j:35075
- See also Zhang, Tong. 81g:35078
- Zajczkowski, Wojciech Riemann invariants interaction for nonelliptic systems. 81i:35101
- Zhang, Tong (with Xiao, Ling) A Riemann problem for the system of conservation laws of aerodynamics without convexity. (Chinese. English summary) 81g:35078
- See also Xiao, Ling. 81j:35075

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- Bampi, Franco (with Morro, A.) Viscous fluids with hidden variables and hyperbolic systems. (81d:76006)

- Caffisch, Russel E. The fluid dynamic limit of the nonlinear Boltzmann equation. (81j:76072)
- Crandall, Michael G. (with Majda, Andrew) The method of fractional steps for conservation laws. (81j:65101)
- Dafermos, C. M. Asymptotic behavior of solutions of hyperbolic balance laws. (81g:35073)
- Glimm, James G. (with Marchesin, Dan; McBryan, O.) Subgrid resolution of fluid discontinuities. II. (81k:76041)
- Hadiševanov, L. (with Stojanov, D. C.) On the free scalar massless field in two-dimensional space-times. (81d:81077)
- Kupersmidt, Boris (with Manin, Ju. I.) Long wave equations with a free surface. I. Conservation laws and solutions. (Russian) (81a:58027)
- (with Manin, Ju. I.) Long wave equations with a free surface. II. The Hamiltonian structure and the higher equations. (Russian) (81a:58028)
- Majda, Andrew See Crandall, Michael G. (81j:65101)
- Manin, Ju. I. See Kupersmidt, Boris. (81a:58027) and Kupersmidt, Boris. (81a:58028)
- Marchesin, Dan See Glimm, James G.; et al. (81k:76041)
- McBryan, O. See Glimm, James G.; et al. (81k:76041)
- Morro, A. See Bampi, Franco. (81d:76006)
- Offier, Joseph On the initial-boundary value problem for the equations of gas dynamics. (81g:76061)
- Schafir, R. L. Bondi's vector, and the Seliger & Whitham variational principle for matter fields. (81d:83030)
- Schönbek, Maria Elena Decay of solutions to parabolic conservation laws. (81k:35081)
- Stojanov, D. C. See Hadiševanov, L. (81d:81077)

35L67 Shocks and singularities

- Amann, Kazuo Branching of singularities for degenerate hyperbolic operators and Stokes phenomena. 81k:35102
- Berning, John A., Jr. See Reed, Michael C. 81e:35084
- Blohin, A. M. A mixed problem for a system of equations of acoustics with boundary conditions on a shock wave. (Russian) 81e:35083
- Donato, A. See Jeffrey, Alan. 81a:35063
- Gaiduk, S. I. Mathematical examination of certain mixed problems in the theory of mechanical shock. (Russian) 81k:35103
- Jeffrey, Alan (with Donato, A.) The occurrence of singularities in solutions of homogeneous systems of two first order quasilinear hyperbolic equations with initial data. 81a:35063
- Li, Bang He Global analysis of shock waves. (Chinese) 81g:35079
- Liu, Tai Ping Invariants and asymptotic behavior of solutions of a conservation law. 81e:35085
- Morice, Philippe (with Viviani, Henri) Équations de conservation et condition d'irréversibilité pour les écoulements transsoniques potentiels. (English summary) 81k:35104
- Oğuztöreli, Mehmet Namık (with Şuhubi, E. S.; Teymur, M.) An initial value problem in the theory of nonlinear wave propagation. 81g:35080
- Parker, D. F. The decay of sawtooth solutions to the Burgers equation. 81d:35056
- Reed, Michael C. (with Berning, John A., Jr.) Reflection of singularities of one-dimensional semilinear wave equations at boundaries. 81e:35084
- Ruggeri, Tommaso Interaction between a discontinuity wave and a shock wave: critical time for the fastest transmitted wave, example of the polytropic fluid. 81m:35090
- Şuhubi, E. S. See Oğuztöreli, Mehmet Namık; et al. 81g:35080
- Teymur, M. See Oğuztöreli, Mehmet Namık; et al. 81g:35080
- Viviani, Henri See Morice, Philippe. 81k:35104

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- Abeyaratne, Rohan C. Discontinuous deformation gradients in plane finite elastostatics of incompressible materials. (81k:73028)
- Bredimas, Antoine P. Totally singular solutions of a special class of linear or nonlinear partial differential operators: applications to some fluid mechanics equations. (81m:76008)
- Caffisch, Russel E. The fluid dynamic limit of the nonlinear Boltzmann equation. (81j:76072)
- Filippenko, L. G. Corollaries of the Hugoniot equation. (81k:76040)
- Gaiduk, S. I. A mathematical discussion of a problem of mechanical shock along a rectangular elastic membrane. (Russian. English summary) (81g:73080)
- Ishii, R. Formation of the shock wave near the wave front of nonlinear waves. (81k:76042)
- Kamp, David J. The inverse scattering solution for the full three-dimensional three-wave resonant interaction. (81e:35114)
- Klainerman, Sergiu (with Majda, Andrew) Formation of singularities for wave equations including the nonlinear vibrating string. (81f:35080)
- Kuwahara, Ritshi Spectral invariants of linear differential operators and conservation laws of nonlinear equations. (81e:35070)
- Logan, J. David (with Pérez, José de Jesús) Similarity solutions for reactive shock hydrodynamics. (81m:76030)
- Majda, Andrew See Klainerman, Sergiu. (81f:35080)
- Michelucci, M. L. (with Papuzza, F. P.; Reas, P. G.) The growth of a microbial population as approximate solution of a first-order partial differential equation. (Italian) (81e:92015)
- (with Papuzza, F. P.; Reas, P. G.) Approximate solution of a first-order differential system that represents a "predator-prey" model with account taken of age. (Italian) (81e:92016)
- (with Papuzza, F. P.; Reas, P. G.) A mathematical model concerning the behavior of two biological associations: numerical approximation. (Italian) (81e:92017)
- Morro, A. Interaction of waves with shocks in magnetofluidynamics. (German summary) (81e:76054)

- Mortell, Michael P. See Seymour, Brian R. (81j:76064)
- Papuzza, F. P. See Michelucci, M. L.; et al. (81e:92015); Michelucci, M. L.; et al. (81e:92016) and Michelucci, M. L.; et al. (81e:92017)
- Penkert, Horst The study of the motions of a compressible fluid determined from the point source by a perturbation. (Romanian. German summary) (81e:76031)
- Pérez, José de Jesús See Logan, J. David. (81m:76030)
- Reas, P. G. See Michelucci, M. L.; et al. (81e:92015); Michelucci, M. L.; et al. (81e:92016) and Michelucci, M. L.; et al. (81e:92017)
- Seymour, Brian R. (with Mortell, Michael P.) A finite-rate theory of resonance in a closed tube: discontinuous solutions of a functional equation. (81j:76064)
- Shlota, Taira On a parametric for the hyperbolic mixed problem with diffractive lateral boundary. II. (81c:35079)
- Sulem, Catherine (with Sulem, Pierre Louis) Un résultat d'existence en magnétodynamique des gaz unidimensionnelle. (English summary) (81d:76110)
- Sulem, Pierre Louis See Sulem, Catherine. (81d:76110)
- Ting, T. C. T. Further study on one-dimensional shock waves in nonlinear elastic media. (81b:73010)
- Turkel, Eli On the practical use of high-order methods for hyperbolic systems. (81f:65074)
- Werner, Bodo On complementary variational principles and hypercircle estimates with applications to obstacle problems. (81e:49016)

35L70 Second-order nonlinear equations and systems

- Amerio, Luigi A unilateral problem for a nonlinear vibrating string equation. (Italian summary) 81a:35064
- Akserova, É. Ju. Investigation of the classical solution of a one-dimensional limit boundary value problem on the semi-axis for second-order semilinear hyperbolic equations. (Russian) 81m:35091
- Beisenbaev, E. Conditions for the existence of solutions of a hyperbolic equation with random initial conditions. (Russian) 81e:35111
- Bojadziev, G. N. See Lardner, R. W. 81i:35113
- Brézis, Haim (with Nirenberg, Louis) Forced vibrations for a nonlinear wave equation. 81i:35112
- Cordes vibrantes non linéaires. 81a:35065
- Cimbal, V. M. Degeneration of a second-order hyperbolic equation into an ordinary one. (Ukrainian. Russian summary) 81b:35033
- Girja, T. V. Solvability of the direct Kolmogorov equation for a nonlinear hyperbolic equation with white noise. (Russian. English summary) 81e:35085
- Guseinov, Z. A. See Maksudov, F. G. 81k:35105
- Hryčev, D. A. A homogeneous statistical solution for a nonlinear hyperbolic equation. (Russian. English summary) 81g:35081
- Hsiao, George C. (with Weinacht, Richard J.) Singular perturbations for a weakly nonlinear hyperbolic equation. 81j:35076
- Kakita, Takao (with Nishihara, Kenji; Tamamura, Chiharu) Time delay and scattering for some nonlinear wave equation. 81f:35079
- Klainerman, Sergiu (with Majda, Andrew) Formation of singularities for wave equations including the nonlinear vibrating string. 81f:35080
- Kostenko, V. G. A quasilinear equation of hyperbolic type. (Ukrainian. Russian summary) 81g:35082
- Lardner, R. W. (with Bojadziev, G. N.) Comments on a paper: "Second order hyperbolic equations with small linearities" [SIAM J. Appl. Math. 35 (1978), no. 4, 729-737; MR 58 #29347] by B. R. Seymour and M. P. Mortell. 81i:35113
- Lar'kin, N. A. Global solutions of nonlinear hyperbolic inequalities. (Russian) 81i:35114
- Lu, Zhu Jia See Wang, Guang Yin; et al. 81i:35115
- Lykov, N. Ja. Solution of boundary value problems for a nonlinear equation of hyperbolic type. I. (Russian) 81b:35058
- Mai, Ming Cheng See Wang, Guang Yin; et al. 81i:35115
- Majda, Andrew See Klainerman, Sergiu. 81f:35080
- Maksudov, F. G. (with Guseinov, Z. A.) A mixed problem for quasilinear hyperbolic equations. (Russian. Azerbaijani and English summaries) 81k:35105
- Matrazzo, Giovanni A uniqueness theorem for a nonlinear evolution equation. (Italian. English summary) 81a:35066
- (Mortell, Michael P.) See Lardner, R. W.; et al. 81i:35113
- Nirenberg, Louis See Brézis, Haim. 81i:35112
- Nishihara, Kenji See Kakita, Takao; et al. 81f:35079
- Pysko, I. A. On the existence and properties of a solution of a boundary value problem for a hyperbolic system of equations with piecewise-constant coefficients. (Russian. English summary) 81f:35081
- Schulman, E. I. See Zaharov, V. E. 81j:35077
- (Seymour, Brian R.) See Lardner, R. W.; et al. 81i:35113
- Štěrý, Milan See Vejvoda, O. 81g:35083
- Tamamura, Chiharu See Kakita, Takao; et al. 81f:35079
- Vejvoda, O. (with Štěrý, Milan) Periodic solutions of a weakly nonlinear autonomous wave equation. (Russian summary) 81g:35083
- Wang, Guang Yin (with Mai, Ming Cheng; Lu, Zhu Jia) Discrete phenomena in the initial value problem. (Chinese) 81i:35115
- Webb, G. F. A bifurcation problem for a nonlinear hyperbolic partial differential equation. 81i:35086
- Existence and asymptotic behavior for a strongly damped nonlinear wave equation. 81i:35116
- Weinacht, Richard J. See Hsiao, George C. 81j:35076
- Zaharov, V. E. (with Schulman, E. I.) Degenerative dispersion laws, motion invariants and kinetic equations. 81j:35077

secondary classifications:

- Alymkulov, K. A. See Imanaliev, M. I. (81k:35014)
- Bagchi, S. N. Fundamental equations of classical and of quantum physics as special cases of a nonlinear equation. (81k:81011)
- Diordadze, G. P. (with Pogrebkov, A. K.; Polivanov, M. K.) Global solutions of the

Cauchy problem for the Liouville equation $\varphi_x(t, x) - \varphi_{xx}(t, x) = \frac{1}{2}m^2 \exp \varphi(t, x)$. (Russian) (81j:35103)

Fučík, Svatopluk (with Mawhin, Jean) Generalized periodic solutions of nonlinear telegraph equations. (81i:35014)

Geel, R. (with de Jager, E. M.) Hyperbolic singular perturbations of nonlinear first order differential equations. (81i:35017)

Hall, William S. (with Štěrý, Milan) The Rayleigh and van der Pol wave equations. Extensions and generalizations. (81j:35020)

Husudilova, N. V. Conditions for the continuability of a boundary layer in a gas. (Russian) (81e:76053)

Imanbiliev, M. I. (with Alymkulov, K. A.) Determination of periodic solutions of nonlinear wave equations. (Russian) (81k:35014)

de Jager, E. M. See Geel, R. (81i:35017)

Madame-Tort, Monique Singular perturbations for a class of quasilinear hyperbolic equations. (French summary) (81e:35016)

Matsumi, Kazuo Nonlinear interactions of counter-travelling waves. (81k:35149)

Mawhin, Jean See Fučík, Svatopluk. (81i:35014)

Nakao, Mitsuhiro Periodic solution of the dissipative wave equation in a time-dependent domain. (81k:35015)

Pogrebkov, A. K. See Džordžadze, G. P.; et al. (81j:35103)

Polivanov, M. K. See Džordžadze, G. P.; et al. (81j:35103)

Štěrý, Milan See Hall, William S. (81j:35020)

35L75 Higher (>2) order nonlinear equations and systems

Bainov, D. D. (with Krivošelin, L. E.; Leung, K. V.; Oğuztöreli, Mehmet Namik) Investigation of nonlinear Mangeron polywave systems with heredity and control within the limits of integration. (Russian. Romanian summary) 81e:35087

Christodoulou, Demetrios Extension de la solution du problème de Cauchy d'équations quasi linéaires hyperboliques. (English summary) 81e:35086

Fusco, Domenico Dispersive and dissipative nonlinear waves. (Italian. English summary) 81a:35067

Grigolija, M. P. On the solvability of the Goursat problem. (Russian. Georgian and English summaries) 81f:35082

Hecquet, Gérard Solutions périodiques d'équations de type hyperboliques. 81g:35064

Krivošelin, L. E. See Bainov, D. D.; et al. 81e:35087

Larkin, N. A. Quasilinear hyperbolic equations with dissipation. (Russian) 81i:35117

Leung, K. V. See Bainov, D. D.; et al. 81e:35087

Oğuztöreli, Mehmet Namik See Bainov, D. D.; et al. 81e:35087

Pecher, Hartmut (with von Wahl, Wolf) Time dependent nonlinear Schrödinger equations. 81k:35106

Sanchez, Luis Solutions périodiques non triviales d'une équation d'évolution non linéaire du quatrième ordre. (English summary) 81a:35068

von Wahl, Wolf See Pecher, Hartmut. 81k:35106

Žemuhov, H. K. The Cauchy problem for a fourth-order degenerate nonlinear hyperbolic equation. (Russian) 81i:35118

secondary classifications:

Giambo, Sebastiano (with Palumbo, Annunziata) Sur l'équation de transport pour une onde simple en relativité restreinte. (English summary) (81d:83007)

Lukomskii, V. P. (with Mihailova, I. G.) Complete integrability of physical systems described by a one-dimensional equation of Boussinesq type. (Russian) (81f:35107)

Menzala, Gustavo Perla On classical solutions of a quasilinear hyperbolic equation. (81e:35075)

Mihailova, I. G. See Lukomskii, V. P. (81f:35107)

Palumbo, Annunziata See Giambo, Sebastiano. (81d:83007)

Tolen, Josephine Problème de Cauchy sur deux hypersurfaces caractéristiques sécantes. (English summary) (81i:58018)

35L80 Equations and systems of degenerate type

Brjhanov, V. A. The Cauchy problem for a class of hyperbolic degenerate equations. (Russian) 81m:35092

Čikanov, H. A. Special classes of degenerate equations. (Russian) 81k:35107

Ivanov, L. A. See Kiprijanov, I. A. 81b:35059

Kiprijanov, I. A. (with Ivanov, L. A.) Lacunae for some classes of equations with singularities. (Russian) 81b:35059

Kulkov, N. P. On the Cauchy problem for degenerate hyperbolic equations. (Russian) 81i:35119

Lakusta, K. V. (with Timofeev, Ju. A.) Estimating the range of applicability of the hyperbolic thermal conductivity equation. 81g:35085

Lyskova, L. A. A problem of Bicadze-Samarskii type for a third-order degenerate hyperbolic equation. (Russian) 81i:35060

Mirsaburov, M. See Salakhitdinov, M. S. 81d:35057

Salakhitdinov, M. S. (with Mirsaburov, M.) Some boundary value problems with a shift for an equation of hyperbolic type that degenerates on the boundary. (Russian) 81d:35057

Timofeev, Ju. A. See Lakusta, K. V. 81g:35085

secondary classifications:

Agnoli, Gian Luigi On a class of hyperbolic equations with a singularity and boundary conditions of mixed type ($\partial u / \partial \nu - hu = 0$) of interest in continuum mechanics. (Italian) (81k:35128)

Gejlov, P. Ju. See Halilov, G. M. (See 80d:00021)

Godunov, S. K. Energy integrals of variational problems. (Russian) (81i:35102)

Halilov, G. M. (with Gejlov, P. Ju.) Solution of a mixed problem for a class of quasilinear hyperbolic equations that is degenerate on the boundary. (Russian) (See 80d:00021)

Haribegavili, S. S. A characteristic problem for linear nonstrictly hyperbolic systems.

(Russian. Georgian and English summaries) (81f:35075)

Jank, Gerhard Lösungen der Euler-Darboux-Gleichung, die über die reelle Achse fortsetzbar sind. (81d:35065)

Narita, Mamoru (with Yoshida, Norio) Oscillation of semilinear ultrahyperbolic differential operators. (81f:35012)

Nikolov, J. Ja. See Volkodavov, V. F. (81d:35067)

Nikolov, N. Ja. See Volkodavov, V. F. (81d:35066)

Rassias, John Michael On a Goursat type problem. (81m:35099)

Volkodavov, V. F. (with Nikolaev, N. Ja.) Solution of the Neumann problem for the Euler-Darboux equation. (Russian) (81d:35066)

(with Nikolaev, J. Ja.) Solution of boundary value problems for the Euler-Darboux equation in special classes. (Russian) (81d:35067)

Yoshida, Norio See Narita, Mamoru. (81f:35012)

35L85 Unilateral problems; variational inequalities [See also 35R35, 49A29.]

35L99 None of the above, but in this section

Arsen'ev, A. A. Statistical solutions of a nonlinear wave equation. (Russian) 81j:35078

Constanda, Christian On the stability of the generalized solution of a certain class of evolutionary equations. (Russian summary) 81b:35061

Gejlov, P. Ju. (with Halilov, G. M.) A mixed problem for a hyperbolic equation. (Russian) (See 80d:00021)

Godunov, S. K. Hyperbolic equations of the nonlinear theory of elasticity. (Russian) (See 80f:35002)

Guseinov, M. M. Application of the wave domain method to the solution of a mixed problem. (Russian) (See 80d:00021)

Halilov, G. M. See Gejlov, P. Ju. (See 80d:00021)

Lions, Jacques-Louis Homogénéisation non locale. 81d:35058

secondary classifications:

Abdelaziz, Nazar H. On solutions of an abstract second order hyperbolic equation in a Hilbert space. (Arabic summary) (81b:47011)

Arsen'ev, A. A. Statistical solutions of a nonlinear wave equation. (Russian) (81b:35086)

Cesari, Lamberto Hyperbolic problems: existence and applications. (81k:47086)

Daleckiĭ, Ju. L. (with Fadeeva, E. A.) Solution of some first-order hyperbolic systems with an infinite number of space variables by means of the Fourier-Wiener transform. (Russian) (81b:35094)

Fadeeva, E. A. See Daleckiĭ, Ju. L. (81b:35094)

Gacšiladze, R. I. Contact boundary problems of the dynamics of the moment theory of elasticity for inhomogeneous anisotropic elastic media. (Russian. Georgian and English summaries) (81e:73055)

Gindikin, S. G. See Volevič, L. R. (81b:35016)

Niznik, L. P. Inverse scattering problems for hyperbolic equations. (Russian) (See 80f:35002)

Ogawa, Hajimu Energy decay for solutions of ultrahyperbolic inequalities. (81e:35011)

Oleksandrov, I. M. See Pahareva, N. O. (81b:30074)

Pahareva, N. O. (with Oleksandrov, I. M.) On p -wave functions with wave-logarithmic characteristic p . (Russian. English summary) (81b:30074)

Veller, E. L. Small perturbations and theorems on existence and uniqueness of solutions. (Russian) (81m:47025)

Volevič, L. R. (with Gindikin, S. G.) Energy estimates in a mixed problem for

$(2b+1)$ -hyperbolic equations. (Russian. English summary) (81b:35016)

Zaburav, S. V. The maximum principle for a quasihyperbolic equation. (Russian) (81k:49005)

35M05 Equations and systems of mixed (Tricomi, etc.) or composite type (For degenerate types, elliptic, see 35Jxx, parabolic, see 35Kxx, hyperbolic, see 35Lxx, etc.)

Aleksandrova, T. N. A problem of the Tricomi-Gellerstedt type for a three-dimensional equation in an infinite cylindrical domain. (Russian) 81g:35086

Andrian, A. A. The general boundary value problem for systems of equations of composite type. (Russian. Armenian and English summaries) 81b:35062

Azis, A. K. (with Schneider, Manfred) On uniqueness of Neumann-Tricomi problem in R^2 . 81k:35108

Baimenov, B. See Džuraev, T. D. 81e:35087

Bazarov, D. A boundary value problem of the type of Frankl's problem for a mixed composite equation. (Russian) 81c:35088

Begehr, Heinrich Boundary value problems for composite type systems of first order partial differential equations. 81c:35089

Boltaev, K. S. Representation of a manifold of solutions in the form of series for a class of differential equations with a singular line. (Russian) 81b:35063

Borisko, N. A. The problem M for an equation of mixed type of the second kind. (Russian) 81b:35064

Chang, Ch'u Chin (with Lin, Yü Pin) On uniqueness of mixed type systems. 81k:35109

Džuraev, T. D. Boundary value problems of a class of equations of mixed type. (Russian) 81g:35087

Didenko, V. P. Energy methods in equations of mixed type. (Russian) (See 80f:35002)

Džuraev, A. T. Uniqueness of the solution of the Tricomi problem for an equation of elliptic-hyperbolic type with strong uncharacteristic degeneracy. (Russian) 81d:35059

Džuraev, A. Multidimensional systems of second-order partial differential equations of composite type. (Russian) 81c:35090

Some problems for systems of first-order partial differential equations of

composite type in three-dimensional space. (Russian) 81k:35110

Džuraev, T. D. ★ Краевые задачи для уравнений смешанного и смешанно-составного

типов. (Russian) [Boundary value problems for equations of mixed and

mixed-composite types] 81b:35065

- (with Igrašev, Š. A.) Some boundary value problems with discontinuous gluing conditions for third-order equations of parabolic-hyperbolic type. (Russian) **81j:35079**
- (with Baimenov, B.) Well-posed formulation of boundary value problems for equations of mixed-composite type. (Russian) **81c:35087**
- Ėizendler, R. S. Asymptotic behavior of the solution with respect to a small parameter of a boundary value problem for an elliptic equation with constant coefficients, degenerating into a parabolic equation. (Russian) (See **80d:00021**)
- Eleev, V. A. Generalized Tricomi problem for a mixed hyperbolic-parabolic equation with simultaneous degeneration of type and order. (Russian) **81m:35093**
- Elov, A. M. The uniqueness of the solution of two problems for an equation of mixed type in a bounded cylindrical domain. (Russian) **81b:35066**
- Fan Dyk Čan Boundary value problems for equations of mixed type in bounded domains with two perpendicular lines of degeneration. (Russian) **81m:35094**
- Fedorov, Ju. I. The Dirichlet problem for a hyperbolic equation with the Tricomi-Carroll operator in a strip. (Russian) **81f:35120**
- Fedorov, V. P. The extremum principle for a system of equations. (Russian) **81c:35088**
- Gaidai, N. N. On the question of the spectrum of the Tricomi operator. (Russian) **81m:35095**
- Ganev, R. M. The Gellerstedt problem for a system of equations of mixed type. (Russian) **81g:35088**
- Garrivova, E. G. A boundary value problem for an equation of mixed type. (Bulgarian. Russian and English summaries) **81f:35083**
- Gejurov, P. Ju. See Halilov, G. M., (See **80d:00021**)
- Gubaidullin, K. A. A mixed problem for an equation of mixed-composite type with the operator S . (Russian) **81b:35067**
- Haftov, Š. G. A generalized Goursat problem for an elliptic-hyperbolic equation. (Russian) **81k:35111**
- See also Volkodavov, V. F., **81g:35093**
- Halilov, G. M. (with Gejurov, P. Ju.) Solution of a mixed problem for a class of quasilinear hyperbolic equations that is degenerate on the boundary. (Russian) (See **80d:00021**)
- Hasanov, A. See Salakhitdinov, M. S., **81c:35090** and Salakhitdinov, M. S., **81b:35034**
- Hübner, R. N. An analogue of the Stefan problem for a hyperbolic-parabolic equation with an unknown line of change of type. (Russian) **81b:35068**
- Igrašev, Š. A. See Džuraev, T. D., **81j:35079**
- Kančukov, V. Z. A boundary value problem for a third-order equation of mixed hyperbolic-pseudoparabolic type. (Russian) **81d:35060**
- Karstoprakiev, G. D. The formulation and solvability of boundary value problems for equations of mixed type in multidimensional domains. (Russian) **81f:35064**
- Kirilenko, S. V. Uniqueness of the solution of new boundary value problems with shift for an elliptic-hyperbolic equation in unbounded domains. (Russian) **81m:35096**
- Existence of solutions of new boundary value problems with shift for an elliptic-hyperbolic equation in unbounded domains. (Russian) **81m:35097**
- Kislov, N. V. A boundary value problem for an equation of mixed type. (Russian) **81m:35098**
- Kovačev, D. V. The Frankl' problem in an unbounded domain. (Bulgarian. Russian and English summaries) **81f:35085**
- A problem of the Biczade-Samarskii type for an equation of mixed type. (Bulgarian. Russian and English summaries) **81f:35086**
- Krkumov, Ju. M. The modified Tricomi problem for the equation $u_{xx} + yu_y + (-n + \frac{1}{2})u = 0$. (Russian) **81d:35061**
- Krumin, L. E. The Tricomi problem for an equation of mixed type with degeneracy of various kinds for $y > 0$ and $y < 0$. (Russian) **81b:35069**
- Kur'mula, A. G. Investigation of boundary value problems for an equation of mixed type with a family of characteristics that cross the line of degeneracy twice. (Russian) **81a:35069**
- Lerner, M. E. Uniqueness of the solution of the Tricomi problem for a general Gellerstedt equation. (Russian) **81j:35080**
- Liu, Yu Pin See Chung, Ch'iu Chin, **81k:35109**
- Lu, Zhu Jia (with Mai, Ming Cheng; Wang, Guang Yin) Discrete phenomena in existence in the initial value problems. **81f:35121**
- Mai, Ming Cheng See Lu, Zhu Jia; et al., **81f:35121**
- Makarov, I. A. Solution of the Cauchy-Goursat problem for a second-order equation with two lines of degeneracy. (Russian) **81b:35070**
- Mengzijaev, B. See Salakhitdinov, M. S., **81f:35123**
- Mirsaburov, M. Two nonlocal boundary value problems for the Lavrent'ev-Biczade equation. (Russian) **81j:35081**
- Milenkova, T. A. The G_0 problem for a nonlinear equation with the operator S . (Russian) **81f:35087**
- Moisev, E. I. Some properties of the solution of the Lavrent'ev-Biczade equation. (Russian) **81c:35089**
- Mullov, S. (with Sanginov, A.) General boundary value problem for a system of equations of composite type with multiple real characteristics. (Russian) **81b:35071**
- Nurshoev, M. Some boundary value problems for a system of equations of composite type in three-dimensional space. (Russian) **81d:35062**
- Oranov, Dž. The first boundary value problem for a nonlinear equation of mixed type in three dimensions. (Russian. Turkmen and English summaries) **81b:35072**
- Petrov, V. G. An equation of mixed-composite type. (Bulgarian. Russian and English summaries) **81f:35088**
- Petrova, A. A. The Tricomi problem for first-order systems with two lines of degeneracy. (Russian) **81b:35073**
- Plečinskaja, I. E. On the solution of the boundary value problem M. (Russian) **81g:35089**
- Effective solution of the Tricomi problem for a system of mixed type. (Russian) **81f:35122**
- Ponomarev, S. M. On the theory of boundary value problems for equations of mixed type in three-dimensional domains. (Russian) **81b:35074**
- Popivanov, N. I. Equations of mixed type with two lines of degeneracy in unbounded domains. I. Imbedding theorem. Uniqueness theorem. (Russian) **81j:35082a**
- Equations of mixed type with two lines of degeneracy in unbounded domains. II. Existence of a strong solution. (Russian) **81j:35082b**
- Pysko, I. A. Existence and properties of the solution to a boundary value problem on conjugation of hyperbolic and parabolic systems of equations. (Russian. English summary) **81f:35089**
- Rassias, George M. (with Rassias, John Michael; Rassias, Themistocles M.) Weak solutions of the Frankl'-Morawetz problem in R^{n+1} ($n > 2$). **81c:35091**
- Rassias, John Michael A new mixed type boundary value problem. **81k:35112**
- The 3-dimensional Frankl' problem. **81k:35113**
- The Bitsadze-Lavrent'ev problem. **81k:35114**
- On a Goursat type problem. **81m:35099**
- See also Rassias, George M.; et al., **81c:35091**
- Rassias, Themistocles M. See Rassias, George M.; et al., **81c:35091**
- Sabitov, K. B. Boundary value problems for an equation of mixed type with degeneration of the second kind on the boundary of an infinite domain. (Russian) **81g:35090**
- Salakhitdinov, M. S. (with Hasanov, A.) Boundary value problems with shift for the equation $\operatorname{sgn} y |y|^{n-2} u_{xx} + u_y = 0$. (Russian) **81b:35034**
- (with Mengzijaev, B.) A boundary value problem with conformal derivative for an equation of mixed type with two lines of degeneration. (Russian) **81f:35123**
- (with Hasanov, A.) A boundary value problem for the generalized Tricomi equation. (Russian) **81c:35090**
- Saltykova, N. M. A boundary value problem of Biczade-Samarskii type for an equation of mixed type of the second kind. (Russian) **81b:35075**
- Salzmann, H. Über ein Differentialgleichungssystem vom elliptisch-hyperbolischen Typ im R^2 . II. **81c:35092**
- Sanginov, A. See Mullov, S., **81b:35071**
- Schneider, Manfred See Aziz, A. K., **81k:35108**
- Semerdlieva, Rosica L. Some boundary value problems for an equation of mixed type. (Russian) **81g:35091**
- Šopotov, N. N. Boundary value problems for a third-order mixed equation in unbounded domains. (Bulgarian. Russian and French summaries) **81f:35124**
- The Gevrey problem for a third-order mixed equation with two lines of degeneracy. (Bulgarian. Russian and French summaries) **81f:35125**
- A boundary value problem for a third-order mixed equation. (Bulgarian. Russian and French summaries) **81f:35126**
- A boundary value problem for a third-order mixed equation with two lines of degeneracy. (Bulgarian. Russian and French summaries) **81f:35127**
- Sraždinov, I. F. A system of equations of composite type in multidimensional space. (Russian. Tajiki summary) **81f:35128**
- Taslimirzaev, Ju. U. Uniqueness theorems for equations of mixed type with a nonsmooth line of degeneracy. (Russian) **81c:35091**
- Teršev, S. A. The first boundary value problem for an equation of nonclassical type. (Russian) **81g:35092**
- Usamatšvili, M. A. A problem with an oblique fractional derivative for an equation of mixed type. (Russian. Georgian and English summaries) **81k:35115**
- Volkodavov, V. F. (with Hafizov, Š. G.) A boundary value problem for an equation of mixed type with singular coefficients on a circle. (Russian) **81g:35093**
- Wang, Guang Yin See Lu, Zhu Jia; et al., **81f:35121**
- Yin, Wei Ping Explicit solutions of the Cauchy problem for some hyperbolic differential equations. (Chinese) **81g:35094**
- Zainiev, R. M. Application of two-norm convergence to the solution of a boundary value problem for an equation of mixed type. (Russian) **81k:35116**
- A problem with nonlinear gluing conditions for an equation of mixed type. (Russian) **81b:35076**
- Žegajlov, V. I. A problem of Tricomi type with five shifts in the hyperbolic part of the domain. (Russian) **81j:35083**
- The Frankl' problem with a shift. (Russian) **81g:35095**

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- Gilbert, Robert P. (with Schneider, Manfred) On a class of boundary value problems for a composite system of first order differential equations. **(81j:35028)**
- Halifa, M. È. A mixed problem for a system of second-order hyperbolic-parabolic equations with retarded argument. (Russian. Azerbaijani and English summaries) **(81d:35075)**
- Jank, Gerhard Lösungen der Euler-Darboux-Gleichung, die über die reelle Achse fortsetzbar sind. **(81d:35065)**
- Kreith, Kurt A Sturm theorem for partial differential equations of mixed type. **(81m:35015)**
- Lu, Zhu Jia See Wang, Guang Yin; et al., **(81f:35121)**
- Lyskova, L. A. A problem of Biczade-Samarskii type for a third-order degenerate hyperbolic equation. (Russian) **(81b:35060)**
- Mai, Ming Cheng See Wang, Guang Yin; et al., **(81f:35121)**
- Mosčanov, B. I. Methods of constructing asymptotic solutions for partial differential equations of quasihyperbolic type. (Russian) **(81d:35013)**
- Müller, Andreas H. Existenz schwacher Lösungen des Frankl'-Morawetz-Problems in R^3 . **(81j:35041)**
- Nahšiev, A. M. The contemporary state of the theory of boundary value problems for second-order equations of hyperbolic and mixed type in higher-dimensional domains. (Russian) (See **80f:35002**)
- Nikolaev, J. Ja. See Volkodavov, V. F., **(81d:35067)**
- Nikolaev, N. Ja. See Volkodavov, V. F., **(81d:35066)**
- Pagan, Carlo Domenico On elliptic-parabolic equations of second order and approximating integral equations. (Russian summary) **(81d:35035)**
- Platkov, S. G. An equation of composite type. (Russian) **(81a:35092)**
- Ponomarev, S. M. The eigenvalue problem for an equation of mixed type. (Russian) **(81k:35119)**
- Schneider, Manfred See Gilbert, Robert P., **(81j:35028)**
- Tovmanjan, N. E. Investigation of boundary value problems and properties of solutions for some systems of differential equations with two independent variables. (Russian) **(81b:35015)**

- Volkodavov, V. F. (with Nikolaev, N. Ja.) Solution of the Neumann problem for the Euler-Darboux equation. (Russian) (81d:35066)
 (with Nikolaev, J. Ja.) Solution of boundary value problems for the Euler-Darboux equation in special classes. (Russian) (81d:35067)
 Wang, Guang Yin (with Mai, Ming Cheng; Lu, Zhu Jia) Discrete phenomena in the initial value problem. (Chinese) (81i:35115)

35Nxx Overdetermined systems [See also 58G05, 58G07, 58Hxx.]

35N05 Constant coefficients

- Bratti, Giuliano A remark about elliptic overdetermined systems. 81a:35070
 Zampieri, Giuseppe On some conjectures by E. De Giorgi relative to the global resolvability of overdetermined systems of differential equations. 81m:35100

secondary classifications:

- Andlbert, T. Caractérisation des restrictions à la sphère des fonctions pluriharmoniques par des opérateurs différentiels. (81c:32037)
 Bratti, Giuliano A density theorem about some system. (81k:35027)
 Eskin, Michael Elliptic overdetermined system of two equations in a smooth three-dimensional domain. (81i:35058)
 Lo Surdo, Camillo Pseudostatic resistive hydromagnetic equilibria in a toroid. (French summary) (81a:76049)
 Salto, Tetsuo Hölder estimates on higher derivatives of the solution for $\bar{\partial}$ -equation with C^k -data in strongly pseudoconvex domain. (81g:32014)

35N10 Variable coefficients, general

- Eskin, Michael (with Shamir, Eliahu) Systèmes différentiels surdéterminés qui sont elliptiques dans un domaine. (English summary) 81k:35117
 Kashiwara, Masaki Microlocal analysis. 81i:35129
 Shamir, Eliahu See Eskin, Michael, 81k:35117

secondary classifications:

- Laurent, Yves Deuxième microlocalisation. Opérateurs 2-microdifférentiels. (English summary) (81m:58071)
 Maire, H.-M. Hypoelliptic overdetermined systems of partial differential equations. (81f:35027)
 Sambois, S. M. Formulations of problems for overdetermined systems of partial differential equations. (Russian. English summary) (81i:58055)
 Vladimirov, V. S. (with Žarinov, V. V.) Closed forms associated with linear differential operators. (Russian) (81h:47039)
 Žarinov, V. V. See Vladimirov, V. S., (81h:47039)

35N15 $\bar{\partial}$ -Neumann problem and generalizations; formal complexes [See also 32Fxx and 58G05.]

- Greiner, Peter C. A fundamental solution for a nonelliptic partial differential operator. 81g:35096
 Henkin, G. M. See Sergeev, A. G., 81k:35118
 Res, Claudio Approximated Cauchy problem for linear, first order, overdetermined systems. (Italian summary) 81a:35071
 Sergeev, A. G. (with Henkin, G. M.) Uniform estimates of the solutions of the $\bar{\partial}$ -equation in pseudoconvex polyhedra. (Russian) 81k:35118

secondary classifications:

- Andreotti, Aldo (with Nacinovich, Mauro) Analytic convexity. (81m:32025)
 Burns, Daniel M., Jr. Global behavior of some tangential Cauchy-Riemann equations. (81d:32032)
 Castro, Alfonso Periodic solutions of the forced pendulum equation. (81h:34042)
 Dadok, Jiri (with Harvey, Reese) The fundamental solution for the Kohn-Laplacian \square_b on the sphere in C^n . (81f:32025)
 Derridj, M. Régularité pour $\bar{\partial}$ dans quelques domaines faiblement pseudo-convexes. (81m:32026)
 Harvey, Reese (with Polking, John) Fundamental solutions in complex analysis. I. The Cauchy-Riemann operator. (81c:32042a)
 (with Polking, John) Fundamental solutions in complex analysis. II. The induced Cauchy-Riemann operator. (81c:32042b)
 See also Dadok, Jiri, (81f:32025)
 Krantz, Steven G. Correction to: "Intrinsic Lipschitz classes on manifolds with applications to complex function theory and estimates for the $\bar{\partial}$ and $\bar{\partial}_b$ equations" [Manuscripta Math. 24 (1978), no. 4, 351-378; MR 80b:26020]. (81j:32005)
 Laville, Guy Deux remarques sur les équations de Cauchy-Riemann tangentielles. (English summary) (81c:32024)
 Nacinovich, Mauro See Andreotti, Aldo, (81m:32025)
 Polking, John See Harvey, Reese, (81c:32042a) and Harvey, Reese, (81c:32042b)
 Tarhanov, N. N. Formula and estimates for solutions of the equation $du = f$ in a domain and on the boundary of a domain. (Russian) (81k:32017)
 Tartakoff, David S. The local real analyticity of solutions to \square_b and the $\bar{\partial}$ -Neumann problem. (81k:35033)
 Wagner, Jacques Estimations en norme L^p pour $\bar{\partial} = f$ dans un domaine fortement pseudoconvexe. (English summary) (81d:32031)

35N99 None of the above, but in this section

- Mikhailov, L. G. Correction to: "The consistency of some overdetermined systems of partial differential equations with two unknown functions" [Dokl. Akad. Nauk SSSR 238 (1978), no. 6, 1291-1294; MR 57 #13235]. (Russian) 81m:35101
 Modica, Luciano A Runge theorem for overdetermined systems with constant coefficients. 81c:35093

secondary classifications:

- Lebeau, Gilles Annulation de la cohomologie hyperfonction de certains modules holonomes. (English summary) (81j:58072)
 Ragimov, M. B. Some questions of functional and overdetermined systems of partial differential equations. II. (Russian) (81c:35112)

35Pxx Spectral theory and eigenvalue problems [See also 47Axx, 47Bxx, 47F05.]

35P05 General spectral theory

- Allegretto, Walter Finiteness of lower spectra of a class of higher order elliptic operators. 81d:35063
 Apsey, O. D. (with Otelbaev, M.) The spectrum of one class of binomial operators. (Russian) 81j:35084
 Berthier, Anne-Marie Sur le spectre ponctuel de l'opérateur de Schrödinger. (English summary) 81a:35072
 Brézis, Haim Quelques propriétés de l'opérateur de Schrödinger $-\Delta + V$. 81a:35073
 "Localized" selfadjointness of Schrödinger operators. 81a:35074
 Hess, Peter (with Kato, Tosi) On some linear and nonlinear eigenvalue problems with an indefinite weight function. 81m:35102
 Jensen, Arne Spectral properties of Schrödinger operators and time-decay of the wave functions results in $L^2(\mathbb{R}^n)$, $n > 5$. 81c:35092
 Kato, Tosi See Hess, Peter, 81m:35102
 Otelbaev, M. See Apsey, O. D., 81j:35084
 Robert, Didier Propriétés spectrales d'opérateurs pseudodifférentiels. 81i:35130
 Rosenbljum, G. V. Asymptotic behavior of the eigenvalues for some two-dimensional spectral problems. (Russian) 81a:35075
 Schenck, Dieter Über Schrödingeroperatoren mit flachem Potential. 81h:35035
 Eine Reihendarstellung der Spektralfunktion dreidimensionaler Schrödinger-Operatoren mit flachem Potential. 81m:35103
 Simon, B. Maximal and minimal Schrödinger forms. 81m:35104
 Šubin, M. A. Spectral theory and the index of elliptic operators with almost-periodic coefficients. (Russian) 81f:35090
 Weber, Albin Relativ kompakte Störungen elliptischer Differentialoperatoren. 81a:35076

secondary classifications:

- Allegretto, Walter Conditions for nondiscreteness of lower spectra. (81g:47053)
 Balder, Alberto Noncompact Riemannian manifolds with discrete spectra. (81f:58037)
 Carmona, René Regularity properties of Schrödinger and Dirichlet semigroups. (81k:47052)
 Everitt, W. N. (with Gierzt, M.) Inequalities and separation for Schrödinger type operators in $L_2(\mathbb{R}^n)$. (81g:35020)
 Gierzt, M. See Everitt, W. N., (81g:35020)
 Guillemin, Victor Some classical theorems in spectral theory revisited. (81h:58045)
 (with Kazhdan, David) Some inverse spectral results for negatively curved n -manifolds. (81i:58048)
 Infantino, R. (with Matarasso, S.; Troisi, M.) Spectral properties for a class of elliptic operators. (Italian. English summary) (81i:35076)
 Kazhdan, David See Guillemin, Victor, (81i:58048)
 Koval'uk, V. E. (with Umalatov, S. D.) The property of being a multiple basis for the system of eigenfunctions of a fourth-order differential operator. (Russian) (81j:34035)
 Matarasso, S. See Infantino, R.; et al., (81i:35076)
 Miller, Keith (with Simon, B.) Quantum magnetic Hamiltonians with remarkable spectral properties. (81d:81022)
 Nakonečnii, V. V. The group-theoretic properties of differential equations with coefficients which generate a Clifford algebra. (Russian. English summary) (81e:35012)
 Osserman, Robert Isoperimetric inequalities and eigenvalues of the Laplacian. (81g:52012)
 Ozawa, Shin Remarks on Hadamard's variation of eigenvalues of the Laplacian. (81d:58048)
 Schechter, Martin The continuous singular spectrum of the Schrödinger operator. (81k:47014)
 Simon, B. See Miller, Keith, (81d:81022)
 Sleeman, B. D. ★ Multiparameter spectral theory in Hilbert space. (81h:47004)
 Šubin, M. A. Almost periodic elliptic operators. (Russian) (See 80f:35002)
 Taylor, Michael E. Fourier integral operators and harmonic analysis on compact manifolds. (81i:58042)
 Troisi, M. See Infantino, R.; et al., (81i:35076)
 Umalatov, S. D. See Koval'uk, V. E., (81j:34035)
 Weber, Albin Über das wesentliche Spektrum des gestörten polyharmonischen Operators. (81f:47053)
 Wong, M. W. Spectral analysis of strongly Carleman pseudodifferential operators. (81i:47054)

35P10 Completeness of eigenfunctions, eigenfunction expansions

- Day, William B. Asymptotic expansions of eigenvalues and eigenfunctions of random boundary value problems. 81j:35085
 Dubrovskii, V. V. The regularized bi-Laplacian trace with periodic boundary conditions on the square. (Russian. English summary) 81e:35093
 Hoenders, B. J. On the correct expansion of a Green function into a set of eigenfunctions connected with a non-Hermitian eigenvalue problem considered by Morse. 81a:35077
 Il'in, V. A. Expansion of nonselfadjoint second order elliptic operators into eigenfunctions and adjoint functions. (Russian) (See 80f:35002)

- Makal, Emre Complete systems of eigenfunctions of the wave equation in some special cases. **81j:35006**
 Murata, Minoru Finiteness of eigenvalues of selfadjoint elliptic operators. **81c:35094**
 Penonmurev, S. M. The eigenvalue problem for an equation of mixed type. (Russian) **81h:35119**
 Sukhov, M. V. Some properties of spectral expansions corresponding to a second-order selfadjoint elliptic operator with discontinuous coefficients. (Russian) **81c:35094**

secondary classifications:

- Ačlov, P. I. The uniqueness of series with respect to eigenfunctions of the biharmonic operator. (Russian) **(81m:31003)**
 Bérard, Pierre H. Riesz means of Riemannian manifolds. **(81f:58038)**
 Hill, Robert Nyden Tight lower bounds to eigenvalues of the Schrödinger equation. **(81h:81016)**
 Hoffmann-Ostenhof, M. (with Hoffmann-Ostenhof, Thomas; Simon, B.) On the nodal structure of atomic eigenfunctions. **(81c:81007)**
 Hoffmann-Ostenhof, Thomas See Hoffmann-Ostenhof, M.; et al., **(81c:81007)**
 Kamata, Hiroshi Decomposition of representations of $SL(2, \mathbb{C})$ induced by the continuous series of $E(2)$. **(81g:22019)**
 Krylov, A. L. (with Lifšic, A. E.) On hyperbolic systems with nonpropagating disturbances. (Russian) **(81h:35030)**
 Lifšic, A. E. See Krylov, A. L., **(81h:35030)**
 Serov, V. S. Convergence of spectral expansions in generalized Besov classes. (Russian) **(81f:42028)**
 Simon, B. See Hoffmann-Ostenhof, M.; et al., **(81c:81007)**
 Šeba, M. A. Construction of resonance states for a three-dimensional Schrödinger operator. (Russian) **(81d:81021)**

35P15 Estimation of eigenvalues, upper and lower bounds

- Allegretto, Walter Lower bounds on the number of points in the lower spectrum of elliptic operators. **81a:35078**
 Bandle, Catherine ★Isoperimetric inequalities and applications. **81c:35095**
 de Groen, P. P. N. Singular perturbations of spectra. **81c:35095**
 Marcellini, Paolo Bounds for the third membrane eigenvalue. **81m:35105**
 Otellbaev, M. Estimates of approximate numbers of operators connected with elliptic equations. (Russian) **81j:35087**
 Taylor, Michael E. Estimate on the fundamental frequency of a drum. **81g:35097**
 Thomas, Lawrence E. Birman-Schwinger bounds for the Laplacian with point interactions. **81h:35036**

secondary classifications:

- Asada, Satoshi Notes on eigenvalues of Laplacian acting on p -forms. **(81a:58050)**
 Buser, Peter Über den ersten Eigenwert des Laplace-Operators auf kompakten Flächen. **(81c:58038)**
 Chavel, Isaac Lowest-eigenvalue inequalities. **(81f:58039)**
 Dmitrieva, I. K. (with Plindov, G. I.) Energy approximants and perturbation theory. **(81j:81009)**
 Dubrovskii, V. V. The regularized bi-Laplacian trace with periodic boundary conditions on the square. (Russian. English summary) **(81c:35093)**
 Fichera, Gaetano ★Numerical and quantitative analysis. **(81a:65005)**
 Flessas, George P. On the eigenvalues of the rotating harmonic oscillator. **(81h:81015)**
 Gaveau, Bernard Fonctions propres et non-existence absolue d'états liés dans certains systèmes quantiques. (English summary) **(81i:81027)**
 (Graf, Sandro) See Fichera, Gaetano, **(81a:65005)**
 Harrell, Evans M. Double wells. **(81j:81010)**
 Ionescu, Bucur B. The Neumann eigenvalue problem for an elliptical domain. **(81b:49019)**
 Korotjnev, E. L. On the spectrum of the monodromy operator of the Schrödinger operator with a potential which is periodic with respect to time. (Russian) **(81k:35039)**
 Mar'ja, V. G. (with Plamenevskii, B. A.) Asymptotic behavior of the fundamental solutions of elliptic boundary value problems in domains with conical points. (Russian) **(81c:35042)**
 Plamenevskii, B. A. See Mar'ja, V. G., **(81c:35042)**
 Plindov, G. I. See Dmitrieva, I. K., **(81j:81009)**
 Shimakura, Norio The first eigenvalues of an operator related to selection in population genetics. **(81c:92005)**
 Sprekels, Jürgen (with Voss, Heinrich) Bounds for the critical value of a nonlinear circular membrane under normal pressure. **(81h:73038)**
 Urakawa, Hajime On the least positive eigenvalue of the Laplacian for the compact quotient of a certain Riemannian symmetric space. **(81d:58056)**
 Voss, Heinrich See Sprekels, Jürgen, **(81h:73038)**

35P20 Asymptotic distribution of eigenvalues and eigenfunctions

- Abdérémame, Mohamed Étude spectrale d'opérateurs hypoelliptiques à caractéristiques multiples. (English summary) **81k:35120**
 Abudov, A. A. Properties of Green's function and eigenvalues of a problem with a parameter in a boundary condition. (Russian. Azerbaijani and English summaries) **81m:35106**
 Agranovič, M. S. Spectral properties of elliptic pseudodifferential operators on a closed curve. (Russian) **81c:35096**
 Andreev, A. S. Asymptotic behavior of the spectrum of boundary value problems for a hypoelliptic operator of "noninteger" order. (Russian) **81m:35107**
 Asakura, Fumio The asymptotic distribution of eigenvalues for the Laplacian in semi-infinite domains. **81h:35077**
 Babič, V. M. (with Levitan, B. M.) The focusing problem and asymptotic behavior of the spectral function of the Laplace-Beltrami operator. I. (Russian. English summary) **81d:35064a**

- The focusing problem and asymptotic behavior of the spectral function of the Laplace-Beltrami operator. II. (Russian. English summary) **81d:35064b**
 Berger, Günter Asymptotische Eigenwertverteilungen mit Restgliedabschätzungen des Tricomischen Differentialoperators 2. Art. **81a:35079**
 Bolmatov, K. H. Spectral asymptotics of differential equations with operator coefficients in a nonsmooth domain. (Russian) **81g:35098**
 Distribution of eigenvalues of degenerate elliptic operators. (Russian) **81a:35080**
 Bolley, P. (with Camus, Jacques; Pham The Lai) Noyau, résolvante et valeurs propres d'une classe d'opérateurs elliptiques et dégénérés. **81b:35078**
 Camus, Jacques See Bolley, P.; et al., **81b:35078**
 Chazarain, Jacques Comportement semi classique du spectre d'un hamiltonien quantique. **81j:35088**
 Feigl, V. I. Asymptotic distribution of eigenvalues and the Bohr-Sommerfeld formula. (Russian) **81c:35096**
 Friedman, Avner Reinforcement of the principal eigenvalue of an elliptic operator. **81c:35097**
 Geymonat, Giuseppe See Grubb, Gerd, **81f:35092**
 Glaser, V. (with Grosse, H.; Martin, André) Bounds on the number of eigenvalues of the Schrödinger operator. **81a:35081**
 Griego, Richard J. (with Hersh, Reuben) Weyl's theorem for certain operator-valued potentials. **81f:35091**
 Grosse, H. See Glaser, V.; et al., **81a:35081**
 Grubb, Gerd (with Geymonat, Giuseppe) Eigenvalue asymptotics for selfadjoint elliptic mixed order systems with nonempty essential spectrum. (Italian summary) **81f:35092**
 Guney, A. I. The spectrum of selfadjoint elliptic operators with coefficients from an algebra with mean. (Russian. English summary) **81m:35108**
 Hersh, Reuben See Griego, Richard J., **81f:35091**
 Hmel'nickii, P. E. The asymptotics of the spectrum of integral operators that are related to elliptic boundary value problems. (Russian) **81a:35082**
 Kozlov, V. A. Asymptotic behavior of the spectrum of nonseminbounded elliptic systems. (Russian) **81h:35037**

Estimation of the remainder in a formula for the asymptotic behavior of the spectrum of nonseminbounded elliptic systems. (Russian. English summary) **81c:35098**

- Kurylev, Ja. V. Asymptotic behavior near the boundary of the spectral function of a second-order elliptic operator. (Russian) **81j:35089**
 Levitan, B. M. See Babič, V. M., **81d:35064a**
 Mahmudov, M. D. The asymptotic behavior of eigenvalues and eigenfunctions of a second-order elliptic operator with variable coefficients in thin domains. (Russian. Azerbaijani and English summaries) **81m:35109**
 Majda, Andrew (with Ralston, James) An analogue of Weyl's formula for unbounded domains. III. An epilogue. **81k:35121**
 Martin, André See Glaser, V.; et al., **81a:35081**
 Mehra, Mohan Lal ★Zur asymptotischen Verteilung der Eigenwerte des Maxwellischen Randwertproblems. (German) [On the asymptotic distribution of eigenvalues of Maxwell's boundary value problem] **81c:35099**
 Métivier, Guy Valeurs propres d'opérateurs définies par la restriction de systèmes variationnels à des sous-espaces. **81c:35100**
 Mihailescu, V. A. Refinement of asymptotic formulas for the spectrum of the Laplace operator in domains of type $G = G_1 \times G_2$. (Russian) **81g:35099**
 The spectral asymptotic behavior of general smooth elliptic operators. (Russian) **81c:35097**
 Orszag, M. B. Completeness of elementary solutions in the problem of steady-state oscillations of an elastic rectangular plate. (Russian) **81j:35090**
 Pham The Lai (with Robert, Didier) Sur un problème aux valeurs propres non linéaire. **81c:35098**
 (with Robert, Didier) Valeurs propres d'une classe d'équations différentielles singulières sur une demi-droite. **81c:35099**
 Meilleures estimations asymptotiques des restes de la fonction spectrale et des valeurs propres relatives au laplacien. (English summary) **81k:35122**
 See also Bolley, P.; et al., **81b:35078**
 Ralston, James See Majda, Andrew, **81k:35121**
 Robert, Didier Développement asymptotique du noyau résolvant d'opérateurs elliptiques. **81g:35100**
 See also Pham The Lai, **81c:35098** and Pham The Lai, **81c:35099**

- Rozenbljum, G. V. Spectral asymptotic behavior of elliptic systems. (Russian) **81k:35123**
 Sjöstrand, Johannes Eigenvalues for hypoelliptic operators and related methods. **81k:35124**

- Tarpošan, G. G. Expansion in a generalized Fourier integral with respect to eigenfunctions in the theory of thin elastic shells of evolution. (Russian) **81m:35110**

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- Borзов, V. V. Asymptotic distribution of eigenvalues of a second-quantized operator. (Russian) **(81d:58055)**
 Boutet de Monvel, Louis Nombre de valeurs propres d'un opérateur elliptique et polynôme de Hilbert-Samuel [d'après V. Guillemin]. **(81j:58078)**
 Brining, Jochen (with Heintze, Ernst) Representations of compact Lie groups and elliptic operators. **(81b:58039)**
 Chazarain, Jacques Comportement du spectre d'un hamiltonien quantique. (English summary) **(81g:58039)**
 Colla de Verdère, Yves Sur le spectre des opérateurs elliptiques à bicaractéristiques toutes périodiques. **(81a:58052)**
 Spectre conjoint d'opérateurs pseudo-différentiels qui commutent. I. Le cas non intégrable. **(81i:58045)**
 Spectre conjoint d'opérateurs pseudo-différentiels qui commutent. II. Le cas intégrable. **(81i:58046)**
 D'Ambrosio, Ubratan See Mangerson, Dumitru Ion; et al., **(81j:10078)**
 Faddeev, L. D. See Tahtadjan, L. A., **(81d:82066)**
 Fortunato, Donato On the index of elliptic partial differential operators in \mathbb{R}^n . (Italian summary) **(81d:47058)**
 de Groen, P. P. N. Singular perturbations of spectra. **(81c:35095)**

- (Gallemin, Victor) See Boutet de Monvel, Louis, (81i:58078)
- Heintze, Ernst See Brünig, Jochen, (81b:58039)
- Ivrii, V. Ja. The second term of the spectral asymptotics for the Laplace-Beltrami operator on manifolds with boundary and for elliptic operators acting in vector bundles. (Russian) (81f:58040)
- Kannal, Yakar Local analyticity of Fourier transforms. (81k:46047)
- Kiselev, V. Ju. Almost periodic integral Fourier operators and some of their applications. (Russian) (81f:58041)
- Klaus, Martin A remark about weakly coupled one-dimensional Schrödinger operators. (81c:81011)
- Mangeron, Dumitru Ion (with Sestopal, A. F.; D'Ambrosio, Ubratan; Njang, S.) Contribution to the problem of the asymptotic behavior of the number of eigenvalues. I. The estimation of certain expansions in Bessel functions. (Russian. Romanian summary) (81i:10078)
- Menikoff, A. Hypocoelliptic operators with double characteristics. (81i:35036)
- Njang, S. See Mangeron, Dumitru Ion; et al., (81i:10078)
- Otelbaev, M. Imbedding theorems for spaces with a weight and their application to the study of the spectrum of a Schrödinger operator. (Russian) (81b:46048)
- Sestopal, A. F. See Mangeron, Dumitru Ion; et al., (81i:10078)
- Sitaram, Alladi A note on $L^2(T^2 \setminus SL(2, \mathbb{R}))$. (81d:22018)
- Sunada, Toshikazu Trace formula for Hill's operators. (81k:58039)
- Taheri, L. A. (with Faddeev, L. D.) The quantum method for the inverse problem and the XYZ Heisenberg model. (Russian) (81d:82066)

35P25 Scattering theory [See also 47A.40.]

- Agmon, S. Some new results in spectral and scattering theory of differential operators on \mathbb{R}^n . (81i:35091)
- Anikonov, Ju. E. (with Golubjatnikov, V. P.) On the question of the uniqueness of the solution of inverse problems of scattering theory. (Russian) 81m:35111
- Cartier, Pierre Théorie de la diffusion pour l'équation de Schrödinger. 81e:35100
- Cooper, Jeffery M. Scattering by moving bodies: the quasistationary approximation. 81i:35125
- Eckardt, Klaus-Jürgen Scattering theory for the Klein-Gordon equation. 81m:35112
- Golubjatnikov, V. P. See Anikonov, Ju. E., 81m:35111
- Ikebe, Teruo (with Isozaki, Hiroshi) Completeness of modified wave operators for long-range potentials. 81i:35131
- Isozaki, Hiroshi See Ikebe, Teruo, 81i:35131
- Jafaev, D. R. Asymptotic behavior of the solutions of the nonstationary Schrödinger equation. (Russian) 81m:35113
- Jensen, Arne (with Kato, Tosio) Spectral properties of Schrödinger operators and time-decay of the wave functions. 81b:35079
- Kato, Tosio See Jensen, Arne, 81b:35079
- Korotjaev, E. L. The scattering problem for a slowly decreasing potential that is periodically dependent on time. (Russian. English summary) 81b:35080
- Melrose, Richard B. Forward scattering by a convex obstacle. 81k:35126
- Niznik, L. P. Inverse scattering problems for hyperbolic equations. (Russian) (See 80f:35002)
- Perry, Peter A. Mellin transforms and scattering theory. I. Short range potentials. 81c:35101
- Saito, Yoshimi ★Spectral representations for Schrödinger operators with long-range potentials. 81a:35083
- Samolilenko, V. G. Wave operators for a Schrödinger type operator in a space of functions of an infinite number of variables. (Russian) 81m:35114
- Skriganov, M. M. High-energy asymptotics of the potential scattering amplitude. (Russian) 81a:35084

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- Agnew, R. G. Nonadiabatic parametric excitation of oscillator-type systems. (81d:81009)
- Alber, H.-D. Reflection of singularities of solutions to the wave equation and the leading singularity of the scattering kernel. (81m:35085)
- Alvarez-Estrada, R. F. Inverse scattering solution of nonlinear evolution equations in one space dimension: an introduction. (81b:35085)
- Andrea, Stephen A. Scattering theory and pseudodifferential operators. (Spanish summary) (81i:47014)
- Ávila, G. S. S. (with Costa, D. G.) Asymptotic properties of general symmetric hyperbolic systems. (81c:35079)
- Baleev, Erik Analytic scattering theory of two-body Schrödinger operators. (81c:47013)
- Bardos, Claude (with Guillot, Jean-Claude; Ralston, James) Relation de Poisson pour l'équation des ondes dans un ouvert non borné. (English summary) (81g:35061)
- Benguria, R. See Levi, D., (81c:35104)
- Bertero, M. (with Viano, G. A.; Pasqualetti, F.; Ronchi, L.; Toraldo di Francia, G.) The inverse scattering problem in the Born approximation and the number of degrees of freedom. (81g:78021)
- Burt, Philip B. Energy bands in nonlinear Schrödinger equations. (81i:81010)
- Buzlaev, V. S. (with Merkur'ev, S. P.; Salikov, S. P.) Diffraction characteristics of scattering in a quantum system of three one-dimensional particles. (Russian) (81d:81092)
- Chadan, Khosrow Gelfand-Levitan theory of the inverse problem for singular potentials. (81c:81044)
- Costa, D. G. See Ávila, G. S. S., (81c:35079)
- Cotta-Ramusino, P. (with Krüger, W.; Schrader, Robert) Quantum scattering by external metrics and Yang-Mills potentials. (French summary) (81h:81129)
- Creamer, Dennis B. (with Thacker, H. B.; Wilkinson, David) Gel'fand-Levitan method for operator fields. (81a:81084)
- Durewicz, J. W. (with Poonan, R.) Upper and lower bounds in nonrelativistic scattering theory. (81i:81083)
- Davies, E. B. On Enns' approach to scattering theory. (81c:81046)
- Dodonov, V. V. (with Kurmysev, E. V.; Man'ko, V. I.) Exact Green function of a

- damped oscillator. (81i:81012)
- Diordindze, G. P. Regular solutions of the Liouville equation. (Russian. English summary) (81k:35141)
- Gesztesy, F. (with Plessas, W.; Thaller, B.) On the high-energy behaviour of scattering phase shifts for Coulomb-like potentials. (81k:81083)
- Guillot, Jean-Claude See Bardos, Claude; et al., (81g:35061)
- Hagedorn, George A. Asymptotic completeness for classes of two, three, and four particle Schrödinger operators. (81a:81079)
- Husain, D. (with Suhrabuddin, S.) Nonlocal potentials and positive energy bound states. (81d:81064)
- Isaacson, David The ground state energy per particle for infinite particle quantum systems. (81g:82013)
- Ivanov, S. S. See Petrina, D. Ja.; et al., (81a:81081)
- Jafaev, D. R. Asymptotic completeness for the multidimensional nonstationary Schrödinger equation. (Russian) (81h:81109)
- Jortner, Joshua See Weissman, Yitzhak, (81i:81021)
- Jung, C. An exactly soluble three-body problem in one dimension. (French summary) (81i:81016)
- Klepikov, N. P. See Šatnii, A. N., (81m:81059)
- Koimanenko, V. D. Formulation of the scattering problem with singular perturbation in rigged spaces. (Russian) (81f:47012)
- Krüger, W. See Cotta-Ramusino, P.; et al., (81h:81129)
- Kurmysev, E. V. See Dodonov, V. V.; et al., (81i:81012)
- Lax, Peter D. (with Phillips, Ralph S.) Translation representations for the solution of the non-Euclidean wave equation. (81a:43013)
- Levi, D. (with Benguria, R.) Bäcklund transformations and nonlinear differential difference equations. (81j:35104)
- MacMillan, L. W. (with Osborn, T. A.) Transit time measures in scattering theory. (81g:81091)
- Manakov, S. V. See Zaharov, V. E.; et al., (81g:35112)
- Man'ko, V. I. See Dodonov, V. V.; et al., (81i:81012)
- Merkur'ev, S. P. See Buzlaev, V. S.; et al., (81d:81092)
- Morgan, John D., III Schrödinger operators whose potentials have separated singularities. (81k:35044)
- Newton, Roger G. Quantum action-angle variables for harmonic oscillators. (81d:81064)
- Novikov, S. P. See Zaharov, V. E.; et al., (81g:35112)
- Nuttall, J. (with Singh, S. R.) Continuation of partial-wave two-cluster atomic scattering amplitudes. (81d:81091)
- Osborn, T. A. See MacMillan, L. W., (81g:81091)
- Pasqualetti, F. See Bertero, M.; et al., (81g:78021)
- Patil, S. H. T-matrix analysis of one-dimensional weakly coupled bound states. (81k:81084)
- Petrina, D. Ja. (with Ivanov, S. S.; Rebenko, A. L.) ★Уравнения для коэффициентов функций матрицы рассеяния. (Russian) [Equations for coefficient functions of the scattering matrix] (81a:81081)
- Phillips, Ralph S. See Lax, Peter D., (81a:43013)
- Pitaevskii, L. P. See Zaharov, V. E.; et al., (81g:35112)
- Plessas, W. See Gesztesy, F.; et al., (81k:81083)
- Poonan, R. See Durewicz, J. W., (81i:81083)
- Prosser, Reese T. Formal solutions of inverse scattering problems. III. (81m:81058)
- Ralston, James See Bardos, Claude; et al., (81g:35061)
- Rauch, Jeffrey Perturbation theory for eigenvalues and resonances of Schrödinger Hamiltonians. (81g:81016)
- Rebenko, A. L. See Petrina, D. Ja.; et al., (81a:81081)
- Ronchi, L. See Bertero, M.; et al., (81g:78021)
- Salikov, S. P. See Buzlaev, V. S.; et al., (81d:81092)
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- Mason, A. L. See Kitchenside, P. W.; et al., (See 80b:81002)
- Matayoshi, Seitaro. Solitons in a magnetic system. (Japanese. English summary) (81j:82029a)
- The n -dimensional nonlinear Schrödinger equation and some of its solutions. (Japanese. English summary) (81j:82029b)
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- Meyer, Richard E. On the meaning of the Boussinesq and Korteweg-de Vries equation. (81g:76017)
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- Perchak, D. (with Weiner, J. H.) Local-mode approximations in the Frenkel-Kontorova or sine-Gordon chain. (81h:82051)
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- Ray, John R. (with Reid, James L.) More exact invariants for the time-dependent harmonic oscillator. (81h:81020)
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- Reiman, A. G. (with Semenov-Tjan-Sanskii, M. A.) Reduction of Hamiltonian systems, affine Lie algebras and Lax equations. (81b:58021)
- Rodrigues, José-Francisco. Sur un problème à frontière libre stationnaire traduisant la cristallisation d'un métal. (English summary) (81k:80010)
- Roy, T. See Roy Chowdhury, A.; et al., (81e:35009) and Roy Chowdhury, A., (81j:58011)
- Roy Chowdhury, A. (with Banerjee, R. S.; Roy, T.) A soliton perturbation scheme for 3×3 inverse scattering transform. (81e:35009)
- (with Roy, T.) Prolongation structure and inverse scattering formalism for the supersymmetric sine-Gordon equation in ordinary space-time variables. (81j:58011)
- Sabat, G. B. A system of equations of S. P. Novikov. (Russian) (81h:58038)
- Salliglu, S. The two-dimensional $O(N)$ nonlinear σ -model and the fifth Painlevé transcendent. (81f:81044)
- Samuelsen, M. R. See Olsen, O. H., (81h:81019)
- Saranen, Jukka. Über das Verhalten der Lösungen der Maxwellschen Randwertaufgabe in Gebieten mit Kegelspitzen. (English summary) (81g:35009)
- Sasaki, R. (with Bullough, R. K.) Geometry of the AKNS-ZS inverse scattering scheme. (81h:58008)
- Satsuma, Junkichi (with Ablowitz, Mark J.) Solutions of an internal wave equation describing a stratified fluid with finite depth. (81k:76081)
- Schechter, Eric. Stability conditions for nonlinear products and semigroups. (81h:76061)
- Schoene, Andrew Y. On the nonrelativistic limits of the Klein-Gordon and Dirac

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- Schulman, E. I. See Zaharov, V. E., (81j:35077)
- Scott, Alwyn C. Magnetic flux annihilation in a large Josephson junction. (81e:81179)
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- Semenov-Tjan-Schanskii, M. A. See Reiman, A. G., (81b:58021)
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- Shiojo, Tsuneco See Matayoshi, Seitaro, (81j:82031a) and Matayoshi, Seitaro, (81j:82031b)
- Shlader, Steven See Harnad, John; et al., (81e:81070)
- Shukla, P. K. (with Sharma, A. S.) Self-modulation of a wave-packet in a nonlinear dispersive medium. (81k:76093)
- Simonov, Ju. A. Stability of three-dimensional nonrelativistic solitons. (81e:81035)
- Sollani, G. See Leo, M.; et al., (81j:35007)
- Soni, B. K. (with Gupta, M. R.; Dasgupta, Brahmananda) Coupled nonlinear Schrödinger equation for Langmuir and dispersive ion acoustic waves. (81j:76111)
- See also Gupta, M. R.; et al., (81h:76060) and Gupta, M. R.; et al., (81j:76106)
- Spiegel, E. A. Fluid dynamical form of the linear and nonlinear Schrödinger equations. (81k:76011)
- Stebunov, V. A. See Babenko, K. I.; et al., (81j:76020)
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- Suzuki, Toshikazu Trace formula for Hill's operators. (81k:58039)
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- Tasso, H. (with Teichmann, Jiri) On the generalization of the Cole-Hopf transformation. (German summary) (81e:35013)
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- Thomas, H. See Büttiker, M., (81m:82039)
- Tiomo, J. See Boffini, C. G.; et al., (81a:81048)
- Treudell, Clifford Ambrose (with Muncaster, R. G.) ★Fundamentals of Maxwell's kinetic theory of a simple monatomic gas. (81f:80001)
- Tu, Gui Zhang The Lie algebra of invariant group of the KdV, MKdV, or Burgers equation. (81e:58051)
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- Umer, W. On a rigorously classical approach to the sine-Gordon theory. (81g:81037)
- Ungelicht, Piergiorgio L. E. An introduction to some mathematical techniques for nonlinear problems. (81m:00016)
- See also Nonlinear electromagnetics, (81j:78001)
- Vaclavik, J. See Appert, K., (81m:82029)
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- Vilasi, Gaetano On the Hamiltonian structures of the Korteweg-de Vries and sine-Gordon theories. (81i:58028)
- Vinet, L. See Harnad, John; et al., (81e:81070)
- Vishnitskii, A. P. The investigation of a third-order equation that is not solved for the derivative with respect to time. (Russian) (81k:76078)
- Vinegradov, A. M. (with Krasil'shchik, I. S.) A method of calculating higher symmetries of nonlinear evolutionary equations, and nonlocal symmetries. (Russian) (81j:58091)
- Volkodavov, V. F. (with Makušina, R. V.) Uniqueness and existence of the solutions to a problem with shift in a bounded domain for the Euler-Darboux equation. (Russian) (81h:35057)
- Wald, Margaret C. See Ford, Wayne T.; et al., (81a:76043)
- Weiner, J. H. See Perchak, D., (81h:82051)
- Whitham, G. B. ★Lectures on wave propagation. (81i:76010)
- Wilcox, Calvin H. Electromagnetic signal propagation in crystals. (81f:78006)
- Wilson, George Hamiltonian and algebro-geometric integrals of stationary equations of KdV type. (81b:58022)
- Winther, Ragnar A conservative finite element method for the Korteweg-de Vries equation. (81a:65108)
- Witsch, K. J. Ein schiefes Randwertproblem zu einer elliptischen Differentialgleichung zweiter Ordnung mit einer expliziten L_2 -Abschätzung für die zweiten Ableitungen der Lösung. (English summary) (81i:35056)
- Wollman, Stephen Global-in-time solutions of the two-dimensional Vlasov-Poisson systems. (81e:85005)
- Wulst, Michael On a nonlinear evolution problem arising in the theory of pseudoplastic fluids. (Italian summary) (81i:76003)
- Yabushta, S. On exact solutions of diffusion equation in cometary dynamics. (81h:85006)
- Ye, Du Zheng See Zeng, Qing Cun, (81h:86008)
- Zacharias, Klaus See Gajewski, Herbert, (81g:82048)
- Zagrodzinski, J. Particular solutions of the sine-Gordon equation in 2+1 dimensions. (81k:81082)
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- See also Belinskii, V. A., (See 81j:83017)
- Zakrzewski, W. J. See Din, A. M., (81k:81049)
- Zamuratov, K. See Begmatov, A., (81k:76066)
- Zeng, Qing Cun (with Ye, Du Zheng) The adaptation processes of motion in rotating atmosphere. (Chinese. English summary) (81h:86008)
- Znojil, M. The perturbed sine-Gordon equation. (81i:81037)
- Exact solution of the Schrödinger and Klein-Gordon equations for generalised Hulthén potentials. (81m:81018)
- Electromagnetics ★Nonlinear electromagnetics. (81j:78001)
- Nonlinear electromagnetics ★Nonlinear electromagnetics. (81j:78001)

35Q99 None of the above, but in this section

- Andrews, Graham On the existence of solutions to the equation $u_t = u_{xx} + \sigma(u_x)$. 81d:35073
- Bondarenko, B. A. (with Leung, K. V.; Mangeron, Dumitru Ion; Oğuztöreli, Mehmet Namik) Mathematical analyses. Studies on polylinear equations. I. (Italian. French summary) 81f:35110
- Burt, Philip B. Exact solutions of nonlinear generalizations of the wave equation. 81b:35090
- Čučeva, N. A. A boundary value problem for a third-order nonlinear equation. (Russian) 81d:35074
- Diordnadze, G. P. (with Pogrebkov, A. K.; Polivanov, M. K.) Global solutions of the Cauchy problem for the Liouville equation $\varphi_{tt}(t, x) - \varphi_{xx}(t, x) = \frac{1}{2} m^2 \exp \varphi(t, x)$. (Russian) 81j:35103
- Fordy, Allan P. (with Gibbons, John) Integrable nonlinear Klein-Gordon equations and Toda lattices. 81i:35153
- Gibbons, John See Fordy, Allan P., 81i:35153
- Iwamiya, Toshiyuki (with Ōharu, Shinnosuke; Takahashi, Tadayasu) On periodic travelling wave solutions to nonlinear dispersive equations. 81b:35091
- Leung, K. V. See Bondarenko, B. A.; et al., 81f:35110
- Manakov, S. V. See Zaharov, V. E.; et al., 81f:35112
- Mangeron, Dumitru Ion See Bondarenko, B. A.; et al., 81f:35110
- Novikov, S. P. See Zaharov, V. E.; et al., 81f:35112
- Oğuztöreli, Mehmet Namik See Bondarenko, B. A.; et al., 81f:35110
- Ōharu, Shinnosuke See Iwamiya, Toshiyuki; et al., 81b:35091
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- Pogrebkov, A. K. See Diordnadze, G. P.; et al., 81j:35103
- Polivanov, M. K. See Diordnadze, G. P.; et al., 81j:35103
- Takahashi, Tadayasu See Iwamiya, Toshiyuki; et al., 81b:35091
- Zaharov, V. E. (with Manakov, S. V.; Novikov, S. P.; Pitaevskii, L. P.) ★Теория солитонов. (Russian) [Theory of solitons] 81g:35112
- secondary classifications:
- Abellanas, L. (with Guil, F.) Intrinsic properties for conservation laws and Lie-Bäcklund invariances of evolution equations. (81m:58038)
- Aleksov, Ju. Z. Hydrodynamic action on a thin body during its non-steady-state longitudinal motion in a fluid of finite depth. (Russian) (81c:76014)
- Amar, V. (with Dozzio, U.; Olcari, C.) Causal propagation in second-order relativistic wave equations. (Italian and Russian summaries) (81k:81012)
- Bauer, Karl Wilhelm Differentialoperatoren bei verallgemeinerten Euler-Gleichungen. (English summary) (81m:35022)
- Bryant, P. J. (with Laing, A. K.) Permanent wave structures and resonant triads in a layered fluid. (81c:76011)
- Čebotarev, A. M. (with Maslov, V. P.) Processus de sauts et leurs applications dans la mécanique quantique. (81g:81024)
- Četveruškin, B. N. See Volkenskaja, M. I., (81e:76057)
- Cumberbatch, E. (with Norbury, J.) Capillary modification of the singularity at a free-streamline separation point. (81c:76007)
- Dejtarjev, L. M. See Valdiković, P. N., (81a:76051)
- Di Blasio, Gabriella Differentiability of solutions of some evolution equations in nonreflexive Banach spaces. (81a:34059)
- Doktorov, E. V. Prolongation structure without prolongation. (81m:58008)
- Dozzio, U. See Amar, V.; et al., (81k:81012)
- Eatonbrook, Frank B. (with Wahlquist, Hugo) Prolongation structures, connection theory and Bäcklund transformation. (81h:58006)
- Förster, Joachim Über die Strömung in einem elektrodynamischen Generator. (81g:76109)
- Goldstein, Jerome A. (with Wichnoski, Bruno J.) On the Benjamin-Bona-Mahony equation in higher dimensions. (81i:35147)
- Guil, F. See Abellanas, L., (81m:58038)
- Hoenders, B. J. On the correct expansion of a Green function into a set of eigenfunctions connected with a non-Hermitian eigenvalue problem considered by Morse. (81a:35077)
- Hryčev, D. A. A homogeneous statistical solution for a nonlinear hyperbolic equation. (Russian. English summary) (81g:35081)
- Kosinski, Witold A uniqueness theorem for the dynamic initial-displacement boundary value problem in the theory with internal state variables. (81g:73060)
- Kuwabara, Ritshi Spectral invariants of linear differential operators and conservation laws of nonlinear equations. (81c:35070)
- Laing, A. K. See Bryant, P. J., (81c:76011)
- Lebedev, L. P. (with Semiguk, V. M.) The behavior of the solution of the problem of linear viscoelasticity as $t \rightarrow \infty$. (Russian) (81k:73027)
- Longuet-Higgins, M. S. Some new relations between Stokes's coefficients in the theory of gravity waves. (81g:76013)
- Markeev, B. M. On isothermal gas flow between parallel planes with arbitrary tangential momentum accommodation. (81d:76076)
- Maslov, V. P. See Čebotarev, A. M., (81g:81024)
- Mikhailov, A. V. See Zaharov, V. E., (81h:81078)
- Mohan, S. Rama See Verma, A. P., (81c:76043)
- Naumann, Joachim (with Wulst, Michael) On evolution inequalities of Bingham type in three dimensions. II. (81c:76002)
- Negro, Angelo Errata corrigé: "Successive approximations method for magnetic field steady state nonlinear equations" [Rend. Sem. Mat. Univ. Politec. Torino 35 (1976/77), 361–372 (1978); MR 58 #829]. (81d:78011)
- Norbury, J. See Cumberbatch, E., (81c:76007)
- Olcari, C. See Amar, V.; et al., (81k:81012)
- Semiguk, V. M. See Lebedev, L. P., (81k:73027)
- Story, L. An analysis of the "semidissipative" terms in the plasma-dynamical equations. (81m:82031)
- Subbarwany, K. R. (with Trullinger, S. E.) Instability of nontopological solitons of

- coupled scalar field theories in two dimensions. (81h:81106)
- Tartar, Luc. Compensated compactness and applications to partial differential equations. (81m:35014)
- Trullinger, S. E. See Subbaswamy, K. R. (81h:81106)
- Utegenov, K. An approximation of a boundary value problem for nonevolutionary differential equations of the two-phase filtration type. (Russian) (81h:76062)
- Vakilev, P. N. (with Degtjarev, L. M.) Boundary value problems of the theory of MHD equilibrium. (Russian. English summary) (81a:76051)
- Verma, A. P. (with Mohan, S. Rama) Existence and uniqueness of similarity solutions of imbibition equation. (81c:76043)
- Volkovskaja, M. L. (with Četveruškin, B. N.) Solution of two-dimensional non-steady-state problems of radiative gas dynamics. (Russian) (81c:76057)
- Wahlquist, Hugo. See Estabrook, Frank B. (81h:58006)
- Wichowski, Bruno J. See Goldstein, Jerome A. (81i:35147)
- Wulst, Michael. See Naumann, Joachim. (81c:76002)
- Zakharov, V. E. (with Mikhailov, A. V.) On the integrability of classical spinor models in two-dimensional space-time. (81h:81076)
- Žitkov, G. V. The finiteness of the Dirichlet integral for a class of functions. (Russian) (81j:46058)

35Rxx Miscellaneous topics (For equations on manifolds, see 58Gxx; for manifolds of solutions, see 58Bxx; for stochastic PDEs, see also 60H15.)

35R05 Equations with discontinuous coefficients or data

secondary classifications:

- Azzam, Ali. On the Dirichlet problem for elliptic equations. (81h:35010)
- Baia, V. V. Estimates of derivatives of the solution to linear equations of elliptic and parabolic type with discontinuous coefficients. (Russian) (81a:35020)
- Brazeik, Jan. An initial value problem for a singular parabolic equation of even order. (81f:35056)
- Il'in, E. M. (with Sivažinskii, S. V.) Differentiable solutions of symmetric systems in plane domains with irregular boundary. (Russian) (81j:35004)
- Koledov, L. V. (with Naumov, V. V.) Interpolation in a class of families of Banach spaces. (Russian) (81j:47039)
- Naumov, V. V. See Koledov, L. V. (81j:47039)
- Sivažinskii, S. V. See Il'in, E. M. (81j:35004)
- Zinov'ev, N. P. Particular solutions of an inverse problem for an equation of elliptic type with a piecewise constant right-hand side. (Russian) (81j:35107)

35R10 Difference-partial differential equations, equations with time lag

- Agarwal, Ravi P. (with Thandapani, E.) On the uniqueness of solutions of hyperbolic delay differential equations. 81i:35154
- (with Thandapani, E.) Existence and uniqueness of solutions of hyperbolic delay differential equations. 81h:35092
- Akhbarov, A. Study of a system of nonlinear difference-differential equations connected with multipoint boundary value problems of filtration. (Russian) 81i:35155
- Benguria, R. See Levi, D. 81j:35104
- Bortel, M. S. (with Fodčuk, V. I.) Quasiperiodic solutions of linear partial-functional-differential equations. (Russian) 81a:35093
- Derfel, G. A. (with Žitomirskii, Ja. I.) Behavior at zero of the solutions of a class of functional-differential equations. (Russian) 81k:35155
- Fodčuk, V. I. See Bortel, M. S. 81a:35093
- Halifa, M. É. A mixed problem for a system of second-order hyperbolic-parabolic equations with retarded argument. (Russian. Azerbaijani and English summaries) 81d:35075
- Kamenskii, G. A. (with Mykiss, A. D.; Skubačevskii, A. L.) The minimum of a quadratic functional and linear boundary value problems of elliptic type with deviating arguments. (Russian) 81a:35094
- Levi, D. (with Ragnisco, O.) Nonlinear differential-difference equations with N -dependent coefficients. II. 81k:35156
- (with Benguria, R.) Bäcklund transformations and nonlinear differential difference equations. 81j:35104
- Liu, Bao Ping. Almost periodic solutions of partial differential equations with deviation. (Chinese) 81i:35156
- Mykiss, A. D. See Kamenskii, G. A.; et al. 81a:35094
- Nababan, S. (with Teo, K. L.) Existence and uniqueness of weak solutions of the Cauchy problem for parabolic delay-differential equations. 81f:35111
- Raginov, M. B. Some questions of functional and overdetermined systems of partial differential equations. II. (Russian) 81c:35112
- Ragnisco, O. See Levi, D. 81k:35156
- Skubačevskii, A. L. See Kamenskii, G. A.; et al. 81a:35094
- Teo, K. L. See Nababan, S. 81f:35111
- Thandapani, E. See Agarwal, Ravi P. 81b:35092 and Agarwal, Ravi P. 81i:35154
- Viglin, E. S. Zero solutions of partial differential evolution equations with deviating time argument. (Russian) 81h:35093
- Žitomirskii, Ja. I. See Derfel, G. A. 81k:35155

secondary classifications:

- Aliev, R. G. On the existence and stability of solutions to an equation with retarded argument in Hilbert space. (Russian) (81k:34080)
- Ardito, A. (with Ricciardi, P.) Existence and regularity for linear delay partial differential equations. (81f:34076)
- Brandi, Primo. On the Cauchy problem for a nonlinear differential equation with first-order partial derivatives with functional argument. (Italian) (81k:35004)
- Datko, Richard. Lyapunov functionals for certain linear delay differential equations in a

Hilbert space. (81m:34106)

- Nababan, S. (with Teo, K. L.) On the existence of optimal controls of the first boundary value problems for parabolic partial delay-differential equations in divergence form. (81d:49004)
- Pere'muter, M. A. (with Semenov, Ju. A.) Selfadjointness of elliptic operators with a finite and with an infinite number of variables. (Russian) (81i:35046)
- Ricciardi, P. See Ardito, A. (81f:34076)
- Semenov, Ju. A. See Pere'muter, M. A. (81i:35046)
- Teo, K. L. See Nababan, S. (81d:49004)

35R15 Equations on function spaces [See also 58D25.]

- Berezans'kii, Ju. M. (with Samoilenko, V. G.) Selfadjointness of differential operators with finite and infinite number of variables. (Russian. English summary) 81a:35095
- Dalec'kii, Ju. L. (with Šeralev, N. K.) First-order equations for measures and chains in an infinite-dimensional space. (Russian) 81k:35157
- Dwyer, Thomas A. W., III. Analytic evolution equations in Banach spaces. 81k:35159
- Feller, M. N. A family of infinite-dimensional elliptic expressions. (Russian) 81g:35113
- Infinite-dimensional Laplace-Lévy differential operators. (Russian) 81d:35076
- Frolov, N. N. Selfadjointness of elliptic operators with an infinite number of variables. (Russian) 81m:35134
- Samoilenko, V. G. See Berezans'kii, Ju. M. 81a:35095
- Šeralev, N. K. See Dalec'kii, Ju. L. 81k:35157
- Szarski, Jacek. Cauchy problem for an infinite system of differential-functional equations with first order partial derivatives. 81d:35077

secondary classifications:

- Colombeau, J. F. (with Perrot, B.) Convolution equations in spaces of infinite-dimensional entire functions of exponential and related types. (81h:46047)
- Dalec'kii, Ju. L. Selfadjointness and maximal dissipativity of differential operators for functions of an infinite-dimensional argument. (Russian) (81j:47037)
- Hanouz, B. (with Joly, Jean-Luc) Convergence géométrique pour les itérés définissant la solution d'une I. Q. V. abstraite. (81g:49034)
- Joly, Jean-Luc. See Hanouz, B. (81g:49034)
- Lascar, Bernard. Noyaux d'une classe d'opérateurs pseudo-différentiels sur l'espace de Fock, et applications. (81e:47040)
- Équations aux dérivées partielles en dimension infinie. (81d:58021)
- Opérateurs pseudo-différentiels en dimension infinie. Étude de l'hypoellipticité de la résolubilité dans des classes de fonctions holderiennes et de distributions pour des opérateurs pseudo-différentiels elliptiques. (81a:35097)
- Une classe d'opérateurs elliptiques du second ordre sur un espace de Hilbert. (81i:47052)
- Marcus, Moshe (with Mizel, V. J.) A characterization of first order nonlinear partial differential operators on Sobolev spaces. (81j:47040)
- Mizel, V. J. See Marcus, Moshe. (81j:47040)
- Perrot, B. See Colombeau, J. F. (81h:46047)
- Samoilenko, Ju. S. Infinite-dimensional second-order elliptic operators with constant coefficients. (Russian) (81k:47051)
- Samoilenko, V. G. Wave operators for a Schrödinger type operator in a space of functions of an infinite number of variables. (Russian) (81m:35114)

35R20 Operator equations, general [See also 34Gxx, 47A50, 47H15.]

- Aliev, R. G. Asymptotic expansion of solutions of partial differential equations with deviating argument. (Russian) 81g:35114
- Bondarenko, B. A. An operator representation of the solutions of partial differential equations with commuting operators. (Russian) 81k:35159
- Dalec'kii, Ju. L. (with Fadeeva, E. A.) Solution of some first-order hyperbolic systems with an infinite number of space variables by means of the Fourier-Wiener transform. (Russian) 81b:35094
- Fadeeva, E. A. See Dalec'kii, Ju. L. 81b:35094
- Lomov, S. A. A new formulation of problems arising in the construction of a regularized asymptotic series. (Russian) (See 80f:35002)

secondary classifications:

- Garland, G. D. The contributions of Carl Friedrich Gauss to geomagnetism. (French summary) (81e:01021)
- (Gaul, Carl Friedrich) See Garland, G. D. (81e:01021)
- Gorbačuk, M. L. See Gorbačuk, V. I. (See 80f:35002)
- Gorbačuk, V. I. (with Gorbačuk, M. L.) Spectral theory of boundary value problems for differential operators with operator coefficients and its application to partial differential equations. (Russian) (See 80f:35002)
- Makarov, A. A. The criterion of correct solvability of a boundary value problem in a layer for a system of linear convolution equations in topological spaces. (Russian) (81i:35030)
- Schott, Dieter. Zur Lösung linearer Gleichungen mit nichtvertauschbaren Operatoren. (81a:47016)
- Umarov, H. G. The Riemann method for some hyperbolic equations with operator coefficients. (Russian) (81m:35082)

35R25 Improperly posed problems

- Papi Frossali, Gloria. On the stability of the Dirichlet problem for the vibrating string equation. 81i:35157
- Seldman, Thomas I. Ill-posed problems arising in boundary control and observation for diffusion equations. 81d:35078

secondary classifications:

- Igamberdyev, H. Z. (with Mannapov, N. N.) Stable reconstruction, in Tikhonov's sense, of conductivity operators of dynamical systems. (Russian) (81j:65073)
- Koblov, U. E. A problem of analytic continuation for the Laplace equation in a half-plane. (Russian) (81a:31002)
- Mannapov, N. N. See Igamberdyev, H. Z. (81j:65073)
- Muzafarov, V. M. On the well-posedness of the formulation without potential of the inverse scattering problem. (Russian. English summary) (81f:81073)
- (Sabatier, Pierre C.) See *Applied inverse problems*, (81a:00024)
- Tammet, H. F. Two-dimensional indeterminacy of the solution of ill-posed inverse problems. (Russian. English summary) (81d:65025)
- Applied inverse problems* ★Applied inverse problems. (81a:00024)
- Inverse problems* ★Applied inverse problems. (81a:00024)

35R30 Inverse problems (undetermined coefficients, etc.)

- Anger, Gottfried Inverse problems in differential equations. 81j:35105
- Anikonov, Ju. E. An inverse kinematic problem of seismics and some questions of stellar dynamics. (Russian) 81j:35158
- Bakae, N. Ju. (with Tarasov, R. P.) A method of stable solution of the Cauchy problem for an equation of elliptic type. (Russian) 81b:35095
- Bismratov, S. Uniqueness of the solution of an inverse problem for electromagnetic waves. (Russian. Kazakh summary) 81d:35079
- Bollay, Yves On the backward heat problem: evaluation of the norm of $\partial u / \partial t$. 81j:35106
- Blagoveshchenskii, A. S. Inverse problems for systems of hyperbolic type. (Russian) 81e:35119
- Caldéron, Alberto P. On an inverse boundary value problem. 81k:35160
- Cannon, John R. (with DuChateau, P.) An inverse problem for an unknown source in a heat equation. 81k:35161
- Chang, Ki Pung The inverse boundary value problem for a system of nonlinear equations in doubly connected domains. (Korean. English summary) 81m:35135
- Čivilev, A. V. See Sveinikov, A. G.; et al., 81c:35113
- DuChateau, P. See Cannon, John R., 81k:35161
- Ehlsner, S. E. A uniqueness theorem for an inverse problem for the telegraph equation. (Russian. Kazakh summary) 81d:35080
- Regularization of the inverse problem for the heat equation. (Russian. Kazakh summary) 81i:35159
- Eremin, Ju. A. See Sveinikov, A. G.; et al., 81c:35113
- Ivanović, M. D. The problem of quasireversibility for a higher-order parabolic equation in a uniform metric. (Russian) 81a:35096
- Lewy, Hans An inversion of the obstacle problem and its explicit solution. 81d:35061
- Luzgina, T. N. See Vasil'eva, V. N., (See 80i:00004)
- Muzyl'ev, N. V. Uniqueness theorems for some inverse problems of heat transfer. (Russian) 81i:35160
- Niznik, L. P. (with Tarasov, V. G.) Inverse scattering problem for a transport equation that is discrete in directions. (Russian) 81k:35162
- Romanov, V. G. Inverse problems and energy inequalities. 81g:35115
- Rundell, William Determination of an unknown nonhomogeneous term in a linear partial differential equation from overspecified boundary data. 81k:35163
- Sidorov, N. A. Regularization of an inverse boundary value problem. (Russian) 81m:35136
- Sveinikov, A. G. (with Eremin, Ju. A.; Čivilev, A. V.) Investigation of the uniqueness of the solution of an inverse problem of diffraction theory. (Russian) 81c:35113
- Talalyev, B. R. The problem of continuation of a one-dimensional hyperbolic equation. (Russian) 81f:35112
- Tarasov, R. P. See Bakae, N. Ju., 81b:35095
- Tarasov, V. G. See Niznik, L. P., 81k:35162
- Vasil'eva, V. N. (with Luzgina, T. N.) On the question of the uniqueness of an inverse problem for the heat equation. (Russian) (See 80i:00004)
- Method of determining the coefficients or right-hand side of a linear differential equation. (Russian) 81g:35116
- A problem of reconstructing a boundary condition for an equation of elliptic type. (Russian) 81g:35117
- Zaplatnik, V. I. Construction of the density of the Lagrangian function from a given fourth-order partial differential equation. (Russian. English summary) 81e:35120
- Zinov'ev, N. P. Particular solutions of an inverse problem for an equation of elliptic type with a piecewise constant right-hand side. (Russian) 81j:35107

secondary classifications:

- Ahn, S. See Jordan, A. K., (81g:78027)
- Ahmedov, A. Ja. An inverse problem for a quasilinear system of parabolic equations in a domain with a moving boundary. (Russian. Azerbaijani and English summaries) (81c:35056)
- Alekseev, A. S. (with Cibul'ik, G. M.) The relation between inverse problems in wave propagation theory and problems of wave field visualization. (Russian) (81j:73032)
- Anikonov, Ju. E. (with Golubjatnikov, V. P.) On the question of the uniqueness of the solution of inverse problems of scattering theory. (Russian) (81m:35111)
- Bamberger, A. (with Chavent, Guy; Lailly, P.) An optimal control solution of the inverse problem of reflection seismics. (81k:86008)
- Campi, Stefano An inverse problem related to the travel time of seismic waves. (Italian summary) (81i:86002)
- Chavent, Guy See Bamberger, A.; et al., (81k:86008)
- Cibul'ik, G. M. See Alekseev, A. S., (81j:73032)
- Golubjatnikov, V. P. See Anikonov, Ju. E., (81m:35111)
- Isakov, V. M. Existence of solutions of an inverse problem of potential theory. (Russian) (81i:31006)
- Jahso, V. G. The problem of determining the coefficient and initial data of a hyperbolic equation. (Russian) (81m:35079)

Jordan, A. K. (with Ahn, S.) Inverse scattering theory and profile reconstruction. (81g:78027)

- Kölbel, Klaus Eine inverse Aufgabe für Wärmepotentiale. (81h:31012)
- Lailly, P. See Bamberger, A.; et al., (81k:86008)
- Medvedev, S. N. Problem of integral geometry for a family of curves in a circular annulus. (Russian) (81i:53052)
- Niznik, L. P. Inverse scattering problems for hyperbolic equations. (Russian) (See 80f:35002)
- Seidman, Thomas I. Ill-posed problems arising in boundary control and observation for diffusion equations. (81d:35078)
- Weston, V. H. Inverse problem for the reduced wave equation with fixed incident field. (81i:35041)

35R35 Free boundary problems

- Alexiades, Vasilios A three-phase free boundary problem arising in alloy solidification. 81m:35137
- (with Cannon, John R.) Free boundary problems in solidification of alloys. 81b:35096
- Ambrosetti, Antonio (with Mancini, Giovanni) A free boundary problem and a related semilinear equation. 81k:35164
- Balocchi, Claudio Variational inequalities and free-boundary problems. 81i:35161
- Caffarelli, Luis A. (with Friedman, Avner) The dam problem with two layers. 81d:35082
- (with Friedman, Avner) Asymptotic estimates for the dam problem with several layers. 81i:35162
- Compactness methods in free boundary problems. 81c:35121
- (with Friedman, Avner) A free boundary problem associated with a semilinear parabolic equation. 81m:35138
- Cannon, John R. See Alexiades, Vasilios, 81b:35096
- Chow, Shui Nee (with Mallet-Paret, John) The parameterized obstacle problem. 81j:35108
- Cryer, Colin W. A proof of the convexity of the free boundary for porous flow through a rectangular dam using the maximum principle. 81g:35118
- Daniljuk, I. I. A class of free (unknown) boundary problems for elliptic equations. (Russian) (See 80f:35002)
- Degjar'ev, L. M. See Vabitshev, P. N., 81c:35114
- Friedman, Avner See Caffarelli, Luis A., 81d:35082; Caffarelli, Luis A., 81i:35162 and Caffarelli, Luis A., 81m:35138
- Ishii, Hitoshi Asymptotic stability and existence of almost periodic solutions for the one-dimensional two-phase Stefan problem. 81m:35139
- Jakubov, S. Ja. Some problems with an unknown boundary for an equation of parabolic type. (Russian) 81c:35122
- Kinderlehrer, David The smoothness of free boundaries governed by elliptic equations and systems. 81i:35163
- Kreß, Rainer Free boundary value problems in hydrodynamics. 81k:35165
- Macovel, Dolma Some typical free boundary problems. 81m:35140
- Mallet-Paret, John See Chow, Shui Nee, 81j:35108
- Mancini, Giovanni See Ambrosetti, Antonio, 81k:35164
- Puel, Jean-Pierre Un problème de valeur propre non linéaire et de frontière libre. 81k:35166
- Vabitshev, P. N. (with Degjar'ev, L. M.) A method of solving a problem with free boundaries for elliptic equations and systems. (Russian) 81c:35114

secondary classifications:

- Balocchi, Claudio (with Evans, Lawrence C.; Frank, Léonid S.; Friedman, Avner) Uniqueness for two immiscible fluids in a one-dimensional porous medium. (81h:76050)
- di Benedetto, Emmanuele See Cannon, John R.; et al., (81a:35085) and Cannon, John R., (81j:35058)
- Berestycki, Henri On some free boundary problems arising in plasma physics and vortex rings theory. (81c:82017)
- Berger, M. S. (with Fraenkel, L. E.) On nonlinear desingularization. (81b:58012)
- (with Fraenkel, L. E.) Nonlinear desingularization in certain free-boundary problems. (81m:35055)
- Brioll, Marco Régularité de la solution de certains systèmes elliptiques d'inéquations variationnelles avec obstacles. (English summary) (81g:49011)
- Caffarelli, Luis A. (with Friedman, Avner) The one-phase Stefan problem and the porous medium diffusion equation: continuity of the solution in n space dimensions. (81h:35021)
- (with Friedman, Avner) The shape of axisymmetric rotating fluid. (81j:76090)
- Cannon, John R. (with di Benedetto, Emmanuele; Knightly, George H.) The steady-state Stefan problem with convection. (81a:35085)
- (with di Benedetto, Emmanuele) On the existence of weak-solutions to an n -dimensional Stefan problem with nonlinear boundary conditions. (81j:35058)
- Damlamian, Alain (with Kenmochi, Nobuyuki) Le problème de Stefan avec conditions latérales variables. (81j:35053)
- Donati, Flavio (with Matzeu, Michele) On some evolution problems of implicit type. (Italian summary) (81i:47063)
- Evans, Lawrence C. See Balocchi, Claudio; et al., (81h:76050)
- Fasano, A. (with Primicerio, M.) Cauchy-type free boundary problems for nonlinear parabolic equations. (81h:35026)
- Flinn, W. D. Llam (with Varoglu, Erol) Finite element solution of the Stefan problem. (81h:65111)
- Forsyth, P., Jr. (with Rasmussen, H.) High order perturbation solution of the electrochemical smoothing problem. (81g:65168)
- Fraenkel, L. E. See Berger, M. S., (81b:58012) and Berger, M. S., (81m:35055)
- Frank, Léonid S. See Balocchi, Claudio; et al., (81h:76050)
- Friedman, Avner Time dependent free boundary problems. (81g:76097)
- Correction to: "On the free boundary of a quasivariational inequality arising in a

- problem of quality control" [Trans. Amer. Math. Soc. 246 (1978), 95-110; MR 80f:93086c]. (81h:93119)
- See also Caffarelli, Luis A., (81h:35021); Baleocchi, Claudio; et al., (81h:76050) and Caffarelli, Luis A., (81j:76090)
- Gagnoux, Gérard Déplacements de fluides non miscibles incompressibles dans un cylindre poreux. (English summary) (81j:76079)
- Glowinski, Roland Finite elements and variational inequalities. (81g:65151)
- Gourgeon, H. (with Mossino, J.) Sur un problème à frontière libre de la physique des plasmas. (English summary) (81f:82023)
- Gullupé, C. Remarques sur un problème de valeurs propres non linéaires faisant intervenir des fonctions non différentiables. (81i:35132)
- Jensen, Robert Smoothness of the free boundary in the Stefan problem with supercooled water. (81g:35057)
- Boundary regularity for variational inequalities. (81k:35043)
- Kennmochi, Nobuyuki See Damlamian, Alain, (81j:35053)
- Kinderlehrer, David (with Stampacchia, Guido) ★ An introduction to variational inequalities and their applications. (81g:49013)
- Knightly, George H. See Cannon, John R.; et al., (81a:35085)
- Korneeva, A. S. See Laikovskii, I. O., (81h:76009)
- Langlais, Michel Un problème unilatéral dégénéré. (81g:35041)
- Larrocq, M. See Sagnez, C., (81i:80007)
- Lions, Pierre-Louis (with Mercier, B.) Splitting algorithms for the sum of two nonlinear operators. (81g:47070)
- An estimate of the Lipschitz norm of solutions of variational inequalities and applications. (81m:49009)
- Laikovskii, I. O. (with Korneeva, A. S.) Nonlinear equations of motion of a fluid in a circular right cylinder and the determination of their coefficients by a variational method. (Russian) (81h:76009)
- Mallet-Paret, John Generic bifurcation in the obstacle problem. (81d:58026)
- Mazzeu, Michele See Donati, Florio, (81i:47063)
- Mar'ja, V. G. (with Plamenevskii, B. A.; Stupelis, L.) The three-dimensional problem of the steady-state motion of a fluid with a free surface. (Russian. English and Lithuanian summaries) (81m:76019)
- Meirmanov, A. M. Classical solvability of the multidimensional Stefan problem. (Russian) (81a:35042)
- Mercier, B. See Lions, Pierre-Louis, (81g:47070)
- Mossino, J. Some nonlinear problems involving a free boundary in plasma physics. (81c:35052)
- See also Gourgeon, H., (81f:82023)
- Nitsche, Joachim A. Finite element approximations for free boundary problems. (81i:65095)
- Olinik, M. V. A nonlinear multiply connected problem with a free boundary. (Russian. English summary) (81i:31013)
- Plamenevskii, B. A. See Mar'ja, V. G.; et al., (81m:76019)
- Primicerio, M. See Fasano, A., (81h:35026)
- Radkevich, E. V. A method of boundary variation in nonstationary filtration. (Russian) (81i:76032)
- Rammosen, H. See Forsyth, P., Jr., (81g:65168)
- Sagnez, C. (with Larrocq, M.) Contrôle de systèmes à frontière libre. Application à la coulée continue d'acier. (81i:80007)
- Sahuev, S. The solvability of a mixed problem for an equation of elliptic type. (Russian. Kazakh summary) (81i:35054)
- Schatzman, Michelle Un problème hyperbolique du 2ème ordre avec contrainte unilatérale: la corde vibrante avec obstacle ponctuel. (English summary) (81h:76015)
- Solomonov, V. A. A problem with a free boundary for a system of Navier-Stokes equations. (Russian) (81c:35106)
- Stampacchia, Guido See Kinderlehrer, David, (81g:49013)
- Stupelis, L. See Mar'ja, V. G.; et al., (81m:76019)
- Tao, L. N. On free boundary problems with arbitrary initial and flux conditions. (81f:35051)
- Varoglu, Erol See Finn, W. D. Lian, (81h:65111)
- Wang, De Yu A variational principle for the equilibrium of a free-boundary plasma. (Chinese. English summary) (81h:76065)
- Wegmann, Rudolf A construction method for a free boundary value problem of potential theory. (81h:31005)
- Werner, Bodo On complementary variational principles and hypercircle estimates with applications to obstacle problems. (81c:49016)
- Zhang, Gong Qing The obstacle problem and partial differential equations with discontinuous nonlinearities. (81f:35032)
- 35R45 Differential inequalities**
- Redheffer, Raymond (with Walter, Wolfgang) Comparison theorems for parabolic functional inequalities. 81i:35164
- Walter, Wolfgang See Redheffer, Raymond, 81i:35164
- secondary classifications:
- Hildebrandt, Stefan (with Widman, Kjell-Ove) Variational inequalities for vector-valued functions. (81a:35023)
- Müller, Ingo Entropy in nonequilibrium—a challenge to mathematicians. (81c:80002)
- Widman, Kjell-Ove See Hildebrandt, Stefan, (81a:35023)
- 35R60 Equations and systems with randomness**
- Abdullaev, F. H. (with Abdumalikov, A. A.; Rahmatov, A. S.) Solution of a nonlinear parabolic equation with random coefficients. (Russian) 81m:35141
- Abdumalikov, A. A. See Abdullaev, F. H.; et al., 81m:35141
- Jurinskii, V. V. Application of the averaging method to elliptic equations with random coefficients. (Russian) 81c:35115
- Averaging of an elliptic boundary value problem with random coefficients. (Russian) 81i:35167
- Kozlov, S. M. The averaging of random operators. (Russian) 81m:35142
- Mihachili, N. A. A theorem on the existence and uniqueness of the solutions of a stochastic system with lag. (Russian) 81i:35165
- Behavior of solutions of a stochastic system with lag. (Russian) 81c:35123
- Papanicolaou, George C. Effective parameters and fluctuations for boundary value problems. 81g:35119
- Rahmatov, A. S. See Abdullaev, F. H.; et al., 81m:35141
- secondary classifications:
- Beisenbaev, E. Conditions for the existence of solutions of a hyperbolic equation with random initial conditions. (Russian) (81i:35111)
- Car'kov, E. F. See Sedorjak, A. M., (81b:60057)
- Freidlin, M. I. See Gärtner, Jürgen, (81d:80005)
- Gärtner, Jürgen (with Freidlin, M. I.) The propagation of concentration waves in periodic and random media. (Russian) (81d:80005)
- Gihman, I. I. A boundary value problem for a stochastic parabolic equation. (Russian) (81d:60062)
- Komeč, A. I. See Viliš, M. L., (81g:35105)
- Kronberg, A. A. Asymptotics of mathematical expectation of the number of steps of an ϵ -spherical process. (Russian) (81f:65006)
- Krylov, N. V. (with Rozovskii, B. L.) Stochastic evolution equations. (Russian) (81m:60116)
- Lukáčev, B. Ja. Limit theorems for a class of stochastic differential equations of hyperbolic type. (Russian) (81c:60072)
- Marcus, Robert Stochastic diffusion on an unbounded domain. (81h:60086)
- Matsuzawa, T. On a class of stochastic partial differential equations. (81m:60117)
- Ponath, H.-E. Streuung elektromagnetischer Oberflächen- und Volumenwellen an rauen Oberflächen. I. Allgemeine Grundlagen. (English summary) (81m:78024a)
- Streuung elektromagnetischer Oberflächen- und Volumenwellen an rauen Oberflächen. II. Die Streulichtverteilung; Ein- und Auskopplung von Oberflächenwellen. (English summary) (81m:78024b)
- Ponomarenko, L. L. An infinite-dimensional stochastic Goursat problem. (Russian) (81b:60060)
- Rozovskii, B. L. See Krylov, N. V., (81m:60116)
- Sedorjak, A. M. (with Car'kov, E. F.) The Cauchy matrix for a system of linear stochastic differential equations. (Russian) (81b:60057)
- Sačev, A. I. Consideration of some corrections to parabolic approximation of quasi-optics in a statistical description of waves propagating in randomly inhomogeneous media. (Russian) (81d:78017)
- Šteřbakov, V. N. Emission propagation in an absorbing medium involving discrete scatterers. (Russian. English summary) (81c:78034)
- Skorohod, A. V. Stochastic differential equations for quasidiffusion processes. (Russian) (81b:60119)
- Ugowski, Henryk On weak solutions of random linear parabolic equations. (81m:35066)
- Viliš, M. L. (with Komeč, A. I.) Translationally homogeneous solutions to a stochastic Navier-Stokes system. (Russian) (81g:35105)
- 35R99 None of the above, but in this section**
- Bračev, G. G. Normal solvability of a class of infinite-order partial differential equations. (Russian) 81i:35143
- Kamont, Z. On the Cauchy problem for system of first order partial differential-functional equations. 81f:35113
- Schumacher, Konrad Obere Schranken für die Ausbreitungsgeschwindigkeit bei parabolischen Funktionaldifferentialgleichungen. (English summary) 81f:35114
- Szarski, Jacek Comparison theorems for infinite systems of differential-functional equations and strongly coupled infinite systems of first-order partial differential equations. 81f:35115
- secondary classifications:
- Arsen'ev, A. A. Statistical solutions of a nonlinear wave equation. (Russian) (81j:35070)
- Brackx, F. See Delanghe, Richard, (81a:30026)
- Delanghe, Richard (with Brackx, F.) Regular solutions at infinity of a generalized Cauchy-Riemann operator. (81a:30026)
- Nikolavskii, V. N. Volume averaging as a method of constructing mathematical models of media with internal structure. (Russian. Armenian and English summaries) (81a:73006)
- Plymen, R. J. The Laplacian and the Dirac operator in infinitely many variables. (81g:58003)
- 35Sxx Pseudodifferential operators [See also 47G05, 58G15]**
- 35S05 General theory**
- Álvarez Alonso, J. Dolores Some facts about regularizing pseudodifferential operators. 81c:35124
- (with Calderón, Alberto P.) Functional calculi for pseudodifferential operators. I. 81j:35109
- Calderón, Alberto P. See Álvarez Alonso, J. Dolores, 81j:35109
- Čistjakov, B. N. See Uspenskii, S. V., 81i:35168
- Egorov, Ju. A. Local properties of pseudodifferential operators with simple real characteristics. (Russian) (See 80f:35002)
- Fefferman, Charles (with Phong, D. H.) Sharp Gårding inequalities. 81h:35097
- Grosia, V. V. (with Šanani, N. A.) Local properties of certain classes of degenerate elliptic pseudodifferential operators and operators of quasiprincipal type. (Russian) (See 80f:35002)
- Hanges, Nicholas Propagation of singularities for a class of operators with double

characteristics. **81i:35166**

Hörmander, Lars Propagation of singularities and semiglobal existence theorems for (pseudo)differential operators of principal type. **81j:35110**

Kashiwa, Zen'ichirō On the general form of Yamaguti-Nogi-Vaillancourt's stability theorem. **81c:35116**

Kalelov, A. A. Fundamental solutions of pseudodifferential equations of convolution type. (Russian) **81j:35111**

Lascar, Bernard Opérateurs pseudo-différentiels en dimension infinie. Étude de l'hypoellipticité de la résolubilité dans des classes de fonctions holderiennes et de distributions pour des opérateurs pseudo-différentiels elliptiques. **81a:35097**

Lascar, R. Paramétrices microlocales de problèmes aux limites pour une classe d'équations pseudo-différentielles à caractéristiques de multiplicité variable. **81f:35116**

Métivier, Guy Une caractérisation des opérateurs elliptiques autoadjoints. **81i:35167**

Peikov, Vesselin M. Microlocal forms for hyperbolic systems. **81i:35168**

Phong, D. H. See Fefferman, Charles, **81b:35097**

Samolinskii, I. S. Homotopy classification of elliptic systems of two first-order pseudodifferential equations, and boundary value problems. (Russian) **81a:35098**

Šamšin, N. A. See Grushin, V. V., (See **80f:35002**)

Uspenskiĭ, S. V. (with Čistjakov, B. N.) Convergence to a polynomial of the solutions of a class of pseudodifferential equations as $|x| \rightarrow \infty$. (Russian) **81i:35168**

secondary classifications:

Anderson, Stig I. Liftings and $\text{Ext}(X)$ for pseudodifferential operators. (French summary) **(81f:46067)**

Aramaki, Junichi On a class of pseudodifferential operators and hypoellipticity. **(81b:35097)**

Birman, M. S. (with Solomjak, M. Z.) Asymptotic behavior of the spectrum of pseudodifferential operators with anisotropically homogeneous symbols. II. (Russian. English summary) **(81b:47060)**

Chen, Chin Ch'eng Les opérateurs d'ordre infini et les ultradistributions. **(81b:46039)**

Colman, Ronald R. (with Meyer, Yves) ★Au delà des opérateurs pseudo-différentiels. (French) [Beyond pseudodifferential operators] **(81b:47061)**

Cupin, V. A. See Maslov, V. P., **(81c:35110)**

Deák, P. E. Almost periodic pseudodifferential operators with multiple symbols. (Russian) **(81b:47068)**

Fefferman, Charles (with Phong, D. H.) On the lowest eigenvalue of a pseudodifferential operator. **(81d:47032)**

Heffer, B. Quelques exemples d'opérateurs pseudodifférentiels localement résolubles. **(81g:58035)**

Hirschowitz, André Une classe de symboles new-look. **(81m:58076)**

Höppner, Wolfgang Einige Abschätzungen für die Symbolrechnung von Pseudodifferentialoperatoren im Halbraum. **(81a:47050)**

Howe, Roger E. On the role of the Heisenberg group in harmonic analysis. **(81h:22010)**

Itin, Viorel Sur l'invariance des distributions semi-régulières. **(81a:46041)**

Ivrii, V. Ja. Wave fronts of solutions of some pseudodifferential equations. (Russian) (See **80f:35002**)

Katrahov, V. V. Transformation operators and pseudodifferential operators. (Russian) **(81b:47042)**

Kumano-go, Hitoshi (with Taniguchi, Kazuo) Fourier integral operators of multiphase and the fundamental solution for a hyperbolic system. **(81g:35071)**

Levanderokii, S. Z. Algebras of pseudodifferential operators with discontinuous symbols. (Russian) **(81f:47051)**

Lorenz, Michael Nichtelliptische Pseudodifferentialoperatoren im \mathbb{R}^n . **(81k:47071)**

Maslov, V. P. (with Cupin, V. A.) δ -shaped solutions of quasilinear equations that are generalized in the sense of Sobolev. (Russian) **(81c:35110)**

Melrose, Richard B. (with Uhlmann, G. A.) Lagrangian intersection and the Cauchy problem. **(81d:58052)**

(with Uhlmann, G. A.) Microlocal structure of involutive conical refraction. **(81b:58044)**

Meyer, Yves See Colman, Ronald R., **(81b:47061)**

Nommes, J. C. Paramétrix du problème de Cauchy pour une classe de systèmes hyperboliques à caractéristiques réelles involutives de multiplicité variable. **(81d:35052)**

Ottaviani, M. The smoothness of solutions of pseudodifferential equations and separability of pseudodifferential operators. (Russian) (See **80f:35002**)

Parenti, Cesare (with Rodino, Luigi) Examples of hypoelliptic operators which are not microhypoelliptic. (Italian summary) **(81f:35028)**

Phong, D. H. See Fefferman, Charles, **(81d:47032)**

Plamenetskiĭ, B. A. Algebras generated by pseudodifferential operators with isolated singularities of symbols. (Russian) **(81f:58035)**

Robert, Didier Propriétés spectrales d'opérateurs pseudo-différentiels. **(81i:35130)**

Rodino, Luigi See Parenti, Cesare, **(81f:35028)**

Rondeaux, Christiane Classes de Schatten d'opérateurs pseudo-différentiels. (English summary) **(81f:47052)**

Saks, R. S. Weakly elliptic systems of pseudodifferential equations on a manifold without boundary. (Russian) **(81d:58051)**

Sjöstrand, Johannes Sur certains complexes d'opérateurs pseudo-différentiels. **(81b:58063)**

Fourier integral operators with complex phase functions. **(81b:58042)**

Solomjak, M. Z. See Birman, M. S., **(81b:47060)**

Sternin, B. Ju. The topological meaning of the quantization conditions in complex Maslov theory. (Russian) **(81i:58041)**

Taniguchi, Kazuo See Kumano-go, Hitoshi, **(81g:35071)**

Taylor, Michael E. Fourier integral operators and harmonic analysis on compact manifolds. **(81b:58042)**

Uhlmann, G. A. Parametrices for operators with multiple involutive characteristics. **(81g:58036)**

See also Melrose, Richard B., **(81b:58044)** and Melrose, Richard B., **(81d:58052)**

Unterberger, André Sur la continuité sur L^2 des opérateurs pseudo-différentiels. **(81b:47063)**

Widom, Harold Families of pseudodifferential operators. **(81c:58061)**

Szegő's theorem and a complete symbolic calculus for pseudodifferential operators. **(81b:58043)**

A complete symbolic calculus for pseudodifferential operators. (French summary) **(81m:58078)**

Wong, M. W. On some exotic pseudodifferential operators. **(81b:47045)**

35S10 Initial value problems

Bony, Jean-Michel Singularités des solutions des équations aux dérivées partielles non linéaires. **81i:35169**

Godin, Paul On a class of pseudodifferential operators with double characteristics. **81j:35112**

Hardin, T. (with Laville, A.) Une généralisation du théorème de propagation des singularités pour les opérateurs à symbole principal réel. **81j:35113**

Ivrii, V. Ja. Wave fronts of solutions of symmetric pseudodifferential systems. (Russian) **81a:35100**

Iwasaki, Chisato (with Iwasaki, Nobuhisa) Parametrix for a degenerate parabolic equation. **81f:35117**

Iwasaki, Nobuhisa See Iwasaki, Chisato, **81f:35117**

Laville, A. See Hardin, T., **81j:35113**

Nommes, J. C. Parametrix du problème de Cauchy pour une classe de systèmes hyperboliques symétrisables à caractéristiques involutives de multiplicité variable. **81i:35169**

secondary classifications:

Abderramane, Mohamed Étude spectrale d'opérateurs hypoelliptiques à caractéristiques multiples. (English summary) **(81k:35120)**

Peikov, Vesselin M. Application of Fourier integral operators concerning hyperbolic operators with multiple characteristics. **(81a:35058)**

Sjöstrand, Johannes Eigenvalues for hypoelliptic operators and related methods. **(81k:35124)**

35S15 Boundary value problems

Colella, P. (with Cordes, H. O.) The C^* -algebra of the elliptic boundary problem. **81m:35144**

Cordes, H. O. See Colella, P., **81m:35144**

de Gosson, Maurice Hypoellipticité partielle à la frontière des opérateurs pseudo-différentiels de transmission. (English summary) **81g:35120**

Grubb, Gerd Estimations du reste dans l'étude des valeurs propres des problèmes aux limites pseudo-différentiels elliptiques. **81c:35117**

Levanderokii, S. Z. Boundary value problems in a half-space for quasielliptic pseudodifferential operators that degenerate on the boundary. (Russian) **81f:35118**

Melrose, Richard B. Singularities of solutions to boundary value problems. **81m:35145**

Plamenetskiĭ, B. A. Boundary value problems for meromorphic pseudodifferential operators. (Russian) **81g:35121**

Wenston, Paul R. A well-posed boundary value problem for partial differential operators of principal type. **81k:35170**

secondary classifications:

Bagirov, L. A. (with Kondrat'ev, V. A.) A class of elliptic equations in \mathbb{R}^n . (Russian) **(81c:35040)**

Doktorskiĭ, R. Ja. Some sufficient conditions for invertibility and for Noethericity of operators of boundary value problems. (Russian) **(81b:47041)**

Fedorov, B. V. The index of elliptic families on a manifold with boundary. (Russian) **(81a:58047)**

Kondrat'ev, V. A. See Bagirov, L. A., **(81c:35040)**

Pham The Lai Meilleures estimations asymptotiques des restes de la fonction spectrale et des valeurs propres relatifs au laplacien. (English summary) **(81k:35122)**

Rempel, Stephan An analytical index formula for elliptic pseudodifferential boundary problems. I. **(81k:58066)**

Schulze, Bert-Wolfgang Elliptic operators on manifolds with boundary. **(81f:58036)**

Some classes of nonelliptic boundary value problems for pseudodifferential operators. I. **(81m:58079)**

35S99 None of the above, but in this section

Hanges, Nicholas Singular solutions for analytic pseudodifferential operators of principal type. **81d:35083**

Yamashita, A. On a necessary condition for the local solvability of pseudodifferential operators with double characteristics. **81c:35118**

secondary classifications:

Belov, V. V. (with Vorob'ev, E. M.) ★Сборник задач по дополнительным главам математической физики. (Russian) [A collection of problems in supplementary chapters of mathematical physics] **(81k:00003)**

Feigin, V. I. Asymptotic distribution of eigenvalues and the Bohr-Sommerfeld formula. (Russian) **(81c:35096)**

Grigis, Alain Propagation des singularités pour des opérateurs pseudo-différentiels à caractéristiques doubles. **(81m:35025)**

Vorob'ev, E. M. See Belov, V. V., **(81k:00003)**

39-XX FINITE DIFFERENCES AND FUNCTIONAL EQUATIONS

39-01 Elementary exposition, textbooks

39-02 Advanced exposition (research surveys, monographs, etc.)

secondary classifications:

Bellman, Richard (with Lee, E. Stanley) Functional equations in dynamic programming. (81c:39002)

Lee, E. Stanley See Bellman, Richard, (81c:39002)

39-03 Historical (must also be assigned at least one classification number from Section 01)

39-04 Explicit machine computation and programs (not the theory of computation or programming)

39-06 Proceedings, conferences, etc.

39Axx Finite differences [See also 65-XX.]

39A05 General

secondary classifications:

(Milne-Thomson, L. M.) See Salzer, Herbert E., (81c:65067)

Salzer, Herbert E. Misstatements in: *The calculus of finite differences* [Macmillan, London, 1933; Zbl 8, 18] by L. M. Milne-Thomson. (81c:65067)

Takács, Lajos A sum of binomial coefficients. (81g:05009)

39A10 Difference equations

Berg, Lothar Stable right inverses of linear difference equations. 81a:39001

Bogatič, B. M. (with Eremenko, V. A.) Solution of implicit finite difference systems. (Russian) 81c:39001

Boyarsky, Abraham See Scarowsky, Mannel, 81i:39002

Brankma, Boele Introduction to the asymptotic theory of linear homogeneous difference equations. 81g:39001

Danilov, V. Ja. (with Pavlov, V. A.) On the reducibility of linear systems of difference equations to the diagonal form. (Russian. English summary) 81i:39001

See also Martinkuk, D. I., 81f:39002

Danković, Bratislav (with Stanković, Miodir S.) A transformation which maps derivatives into differences. 81b:39001

Dih, K. A. Transformation of the discrete finite difference systems to the diagonal form. (Arabic summary) 81b:39001

Eremenko, V. A. See Bogatič, B. M., 81c:39001

Fitzpatrick, W. J. (with Grimm, L. J.) Analytic theory of linear difference equations. 81m:39001

Grimm, L. J. See Fitzpatrick, W. J., 81m:39001

Hirai, Isamu (with Yanagihara, Niro) Difference equations in Banach spaces. 81k:39002

Inagaki, Yoshio On a system of difference equations of the form $y(x-1) = f(x, y(x))$ with $\lim_{x \rightarrow \infty} (\partial f / \partial y)(x, 0) = I$. 81b:39001

Janko, F. F. Bounded solutions of discrete systems with periodic coefficients. (Russian. English summary) 81b:39002

Kocić, Ljubila M. See Lacković, Ivan B., 81f:39001

Lacković, Ivan B. (with Kocić, Ljubila M.) On a linear difference operator. 81f:39001

Love, J. D. Solution of homogeneous linear difference equations. 81m:39002

Martinkuk, D. I. (with Danilov, V. Ja.) Reducibility of systems of linear difference equations to the diagonal form. (Russian. English summary) 81f:39002

Pavlov, V. A. See Danilov, V. Ja., 81f:39001

Scarowsky, Mannel (with Boyarsky, Abraham) On n -dimensional piecewise-linear difference equations. 81i:39002

Stanković, Miodir S. A note on a transformation which maps derivatives into differences. 81f:39003

See also Danković, Bratislav, 81k:39001

Stephens, C. F. Nonlinear difference equations analytic in a parameter. (See 81c:00004)

Talapalar, Pavel Asymptotic behaviour of perturbed difference equations. (Italian summary) 81b:39002

Asymptotic behaviour of perturbed difference equations. 81f:39004

Tuzik, A. I. Discrete equations of convolution type with coefficients of power growth. (Russian. English summary) 81b:39003

Well, F. Existence theorem for the difference equation $Y_{n+1} - 2Y_n + Y_{n-1} = h^2(Y_n)$. 81f:39005

Yanagihara, Niro See Hirai, Isamu, 81k:39002

Zamkova, L. D. On a method of "freezing" for discrete systems. (Russian) 81f:39006

secondary classifications:

Afanas'eva, L. G. (with Mihalova, I. V.) On the number of demands serviced during a busy period. (81c:60093)

Anackov, P. Z. Connection between periodic solutions of differential and finite difference equations. (Bulgarian. Russian and French summaries) (81b:34032)

Antipova, Adel F. (with Nguyen Ky Toan) Topological solution of ordinary and partial finite difference equations. (81g:39002)

Avellar, Cerino E. (with Hale, Jack K.) On the zeros of exponential polynomials. (81d:30011)

Barugola, Alexandre Détermination de la frontière d'une "zone absorbante" relative à

une récurrence du deuxième ordre, à inverse non unique. (English summary) (81f:58025)

Fényes, Tomis (with Kosik, P.) The algebraic derivative and integral in the discrete operational calculus. II. (81b:44017)

Gluik, M. M. See Gnativ, B. V., (81c:65006)

Gnativ, B. V. (with Gluik, M. M.) Nonlinear formulas of analysis based on Shanks transformation. (Russian) (81c:65006)

Gol'cer, Ja. M. The stability of a neutral fixed point of autonomous mappings in the presence of resonance. (Russian) (81j:39001)

Hale, Jack K. See Avellar, Cerino E., (81d:30011)

Heinen, James A. Difference inequalities and comparison theorems for stability of discrete systems. (81a:93066)

Infante, Ronald P. Strong normality and normality for difference fields. (81i:12029)

Kečkić, Jovan D. Analogies between differential and difference equations. III. A class of linear second order difference equations with functional coefficients. (81m:39005)

Analogies between differential and difference equations. II. First and nonparabolic second-order partial equations with constant coefficients. (81m:39004)

Keener, James P. Chaotic behavior in piecewise continuous difference equations. (81j:58055)

Kosik, P. See Fényes, Tomis, (81b:44017)

Martinez-Amores, Pedro Periodic solutions for coupled systems of differential-difference and difference equations. (81c:34057)

McCoy, Barry M. (with Wu, Tai Tsun) Nonlinear partial difference equations for the two-dimensional Ising model. (81m:82044)

McGuire, James B. (with Thompson, Colin J.) Distribution of iterates of first order difference equations. (81m:58048)

Mihalova, I. V. See Afanas'eva, L. G., (81c:60093)

Nguyen Ky Toan See Antipova, Adel F., (81g:39002)

Niederbichler, Günter See Reich, Ludwig, (81b:39005)

Oohashi, Tsumenichi Some representation for inverses of band matrices. (81i:15005)

Page, E. S. (with Wilson, L. B.) ★An introduction to computational combinatorics. (81d:68001)

Reich, Ludwig (with Niederbichler, Günter) Über multiplikative Funktionen von Automorphismen des Potenzreihenrings und invariante Funktionen analytischer Iterationen. (81b:39005)

Reinhardt, Hans-Jürgen On asymptotic expansions in nonlinear, singularly perturbed difference equations. (81b:39005)

Rubel, Lee A. (with Schinzel, A.; Tverberg, Helge) On difference polynomials and hereditarily irreducible polynomials. (81i:12024)

Sayer, F. P. The recurrence relation $(r+1)f_{r+1} = xf_r + (K-r+1)x^2f_{r-1}$. (81f:33016)

Schinzel, A. See Rubel, Lee A.; et al., (81i:12024)

Schroth, Peter On $(1, h_p)$ -replicative functions with isolated discontinuities. (81k:39008)

Thompson, Colin J. See McGuire, James B., (81m:58048)

Tverberg, Helge See Rubel, Lee A.; et al., (81i:12024)

Vervaeke, Wim On a stochastic difference equation and a representation of nonnegative infinitely divisible random variables. (81b:60064)

Wilson, L. B. The use of recurrence relations in computing. (81m:68031)

See also Page, E. S., (81d:68001)

Wu, Tai Tsun See McCoy, Barry M., (81m:82044)

Yanagihara, Niro Meromorphic solutions of the difference equation

 $y(x+1) = y(x) + 1 + \lambda y(x)$. II. (81b:30028)

Zeilberger, Doron A new proof to Ehrenpreis's semilocal quotient structure theorem. (81m:32008)

39A11 Stability of difference equations

(Armstrong, E. S.) See Chen, Han Fu, 81d:39001

Berg, Lothar Regularization of instable boundary value problems for linear difference equations. 81i:39003

Carvalho, Luis Antonio Vieira An analysis of the characteristic equation of the scalar linear difference equation with two delays. 81m:39003

Chen, Han Fu Comments on: "An asymptotic property for a class of finite difference equations" [Internat. J. Control 30 (1979), no. 2, 319-322; MR 80c:93093] by E. S. Armstrong. 81d:39001

Gol'cer, Ja. M. The stability of a neutral fixed point of autonomous mappings in the presence of resonance. (Russian) 81j:39001

Green, William L. See Kamen, Edward W., 81j:39002

Gulin, A. V. Stability criteria for certain nonselfadjoint three-layer difference schemes. (Russian) 81i:39004

Kamen, Edward W. (with Green, William L.) Asymptotic stability of linear difference equations defined over a commutative Banach algebra. 81j:39002

Räsvan, Vladimir Absolute stability of nonlinear difference systems. (French and German summaries) 81d:39002

Zamkova, L. D. The central m -exponent for a system of discrete equations. (Russian) 81b:39004

secondary classifications:

Bear, Donald V. T. (with Conlisk, John) The effect of unlagging on stability and speed of adjustment. (81c:90024)

Conlisk, John See Bear, Donald V. T., (81c:90024)

Hale, Jack K. Variations in delays in difference and differential difference equations. (81g:34095)

Judaev, G. S. Stability of stochastic difference systems. (Russian) (81d:65071)

Kapur, J. N. (with Khan, Q. J. A.) Stability of difference and differential equation systems. (81g:58021)

Khan, Q. J. A. See Kapur, J. N., (81g:58021)

Marotto, Frederick R. Perturbations of stable and chaotic difference equations. (81c:58033)

Sloan, D. M. On boundary conditions for the numerical solution of hyperbolic differential equations. (81g:65137)

Symes, W. W. Numerical stability in an inverse scattering problem. (81k:65135)

39A12 Discrete version of topics in analysis

- Andrić, I. A. (with Boiko, I. M.) Determination of the eigenvalues of a finite difference Laplace operator for regions consisting of rectangles with boundary conditions of mixed type. (Russian) **81j:39003**
- Antippa, Adel F. (with Nguyen Ky Toan) Topological solution of ordinary and partial finite difference equations. **81g:39002**
- Boiko, I. M. See Andrić, I. A., **81j:39003**
- Gurova, I. N. A topological method for studying difference schemes. (Russian) **81a:39002**
- Haldin, I. T. Inverse scattering problem for difference equations. (Russian) **81a:39001**
- Harman, C. J. Discrete geometric function theory. II. **81b:39003**
- Kočič, Jovan D. Analogies between differential and difference equations. III. A class of linear second order difference equations with functional coefficients. **81m:39005**
- Analogies between differential and difference equations. II. First and nonparabolic second-order partial equations with constant coefficients. **81m:39004**
- Kotkowski, Bogdan (with Waszak, Aleksander) An application of Abel's transformation. **81i:39005**
- Makarov, V. L. (with Sa'dullaev, S. S.) Four-point difference schemes for a Goursat problem. (Russian) **81j:39004**
- Martinjak, D. I. Periodic solutions of a functional equation. (Russian) **81f:39007**
- Morel, Paul Diverses données spectrales pour le problème inverse discret de Sturm-Liouville. (English summary) **81k:39003**
- Nguyen Ky Toan See Antippa, Adel F., **81g:39002**
- Pachpatte, B. G. (with Singare, S. M.) Discrete generalized Gronwall inequalities in three independent variables. **81m:39006**
- Reinhardt, Hans-Jürgen On asymptotic expansions in nonlinear, singularly perturbed difference equations. **81h:39005**
- Sa'dullaev, S. S. See Makarov, V. L., **81j:39004**
- Singare, S. M. See Pachpatte, B. G., **81m:39006**
- Streeter, R. F. A bound for the difference Laplacian. **81b:39004**
- Waszak, Aleksander See Kotkowski, Bogdan, **81i:39005**

secondary classifications:

- Barrard, A. Y. Produit étoile et fonction signe de matrice. Application à l'équation de Riccati dans le cas discret. (English summary) **(81i:15011)**
- (Bernhard, P.) See Barrard, A. Y., **(81i:15011)**
- Rohl, Erich Chord techniques and Newton's method for discrete bifurcation problems. **(81c:65022)**
- Bojarsky, Abraham See Scarowsky, Manuel, **(81i:39002)**
- Cobos Bueno, José Miguel Algebra of operators associated with a given operator R . (Spanish) **(81m:44006)**
- Exton, Harold Basic Fourier series. **(81c:33008)**
- Fardiev, R. G. Stability of finite dynamical systems. (Russian. Azerbaijani and English summaries) **(81h:12013)**
- Fényes, Tomis (with Kosik, P.) On transformations of the discrete operator field. **(81b:44014a)**
- (with Szilárd, K.) Über diskrete Mikusinskische Operatoren, die auf Grund der Dirichletschen Produktenformel erzeugt werden. **(81b:44014b)**
- Fitzpatrick, W. J. (with Grimm, L. J.) Analytic theory of linear difference equations. **(81m:39001)**
- Frank, Léonid S. Elliptic difference singular perturbations. **(81g:65130)**
- Difference singular perturbations. I. A priori estimates. **(81g:65129)**
- Gordeckii, M. B. Discrete convolutions in the quarter plane with an infinitely differentiable symbol. (Russian) **(81c:47030)**
- Grimm, L. J. See Fitzpatrick, W. J., **(81m:39001)**
- Hadnagy, A. Sur les méthodes des différences finies implicites. (Romanian summary) **(81b:65068)**
- Heinen, James A. Difference inequalities and comparison theorems for stability of discrete systems. **(81a:39006)**
- Košík, P. See Fényes, Tomis, **(81b:44014a)**
- Makarov, V. L. (with Sa'dullaev, S. S.) On the question of convergence of difference schemes for the Helmholtz equation in a rectangle. (Russian) **(81b:65082)**
- Mizumoto, Hisao A finite-difference method on a Riemannian manifold. **(81b:58004)**
- van Moerbeke, Pierre About isospectral deformations of discrete Laplacians. **(81g:58018)**
- Morel, Paul Diverses données spectrales pour le problème inverse discret de Sturm-Liouville. **(81c:39002)**
- Mugler, Dale H. The discrete Paley-Wiener theorem. **(81m:30052)**
- Orlandi, Sophocles J. Group-theoretical aspects of the discrete sine-Gordon equation. **(81k:81079)**
- Reznik, A. A. (with Rjaben'kii, V. S.) An accelerated method of internal boundary conditions and a related approach to the calculation of singular integrals. (Russian) **(81b:65086)**
- Rjaben'kii, V. S. See Reznik, A. A., **(81b:65086)**
- Romanova, S. E. An economical method of solving the Laplace difference equation on rectangular domains. (Russian) **(81k:65116)**
- Sa'dullaev, S. S. See Makarov, V. L., **(81b:65082)**
- Scarowsky, Manuel (with Bojarsky, Abraham) On n -dimensional piecewise-linear difference equations. **(81h:39002)**
- Szilárd, K. See Fényes, Tomis, **(81b:44014b)**

39A70 Difference operators [See also 47B39.]

- Morel, Paul Diverses données spectrales pour le problème inverse discret de Sturm-Liouville. **81c:39002**

secondary classifications:

- Exton, Harold Basic Fourier series. **(81c:33008)**
- Gupta, Sharda See Prabhakar, T. R., **(81m:05011)**
- Gurova, I. N. A topological method for studying difference schemes. (Russian) **(81a:39002)**
- (with Sobolevskii, P. E.) L -characteristics of fractional powers of difference operators. (Russian) **(81k:47043)**
- Koroblyin, V. A. Transformations of difference operators. (Russian) **(81k:65140)**
- Prabhakar, T. R. (with Gupta, Sharda) Bernoulli polynomials of the second kind and general order. **(81m:05011)**
- Samolenko, V. G. A difference operator with an infinite number of variables. (Russian) **(81i:47038)**
- Sobolevskii, P. E. See Gurova, I. N., **(81k:47043)**
- Zellberger, Doron The algebra of linear partial difference operators and its applications. **(81m:47047)**

39A99 None of the above, but in this section

- Agarwal, Ravi P. (with Thandapani, E.) On some new discrete inequalities. **81h:39004**
- Serebrjakov, V. P. An inverse problem of the scattering theory for difference equations with matrix coefficients. (Russian) **81g:39003**
- Thandapani, E. See Agarwal, Ravi P., **81h:39004**

secondary classifications:

- Cerlenco, L. (with Piras, F.) Linear recurrence sequences and division of polynomials. (Italian. English summary) **(81j:13021)**
- Gyls, A. See Naftalevich, A., **(81h:34081)**
- Kloeden, Peter E. On Sharkovsky's cycle coexistence ordering. **(81d:58045)**
- Naftalevich, A. (with Gyls, A.) On meromorphic solutions of a linear differential-difference equation with constant coefficients. **(81h:34081)**
- Piras, F. See Cerlenco, L., **(81j:13021)**
- Ross, Dieter K. Inequalities and identities for $y_n^2 - y_{n-1}y_{n+1}$. **(81d:33008)**

39Bxx Functional equations [See also 30D05.]

secondary classifications:

- Kieltyka, Stanisław The generalization of the theorem on directional derivative for the functional maximum and some of its applications. **(81a:58007)**

39B05 General

- Bodinefield, Neil Kenneth An initial value problem for a functional equation. **81g:39004**
- Bellman, Richard (with Lee, E. Stanley) Functional equations in dynamic programming. **81c:39002**
- Bogdanov, Ju. S. Extended solutions of functional equations. (Russian) **81g:39005**
- Elliott, P. D. T. A. On certain asymptotic functional equations. **81h:39003**
- Heilmann, Wolf-Rüdiger Ein stochastischer Prozess als Anlass zur Betrachtung der Cauchyschen Funktionalgleichung im Schulunterricht. **81f:39008**
- Lee, E. Stanley See Bellman, Richard, **81c:39002**
- Szék, Árpád (with Szék, G.) Absolutely linear relations. **81j:39005**
- Szék, G. See Szék, Árpád, **81j:39005**

secondary classifications:

- Gumowski, Igor (with Mira, Christian) ★ Recurrence and discrete dynamic systems. **(81m:58052)**
- Mira, Christian See Gumowski, Igor, **(81m:58052)**
- Zdan, Marek Cezary On differentiable iteration groups. **(81a:26004)**

39B10 Equations containing iterates, equations of rank one

- Choczewski, Bogdan (with Turdza, Erwin; Węgrzyk, Roman) On the stability of a linear functional equation. **81h:39006**
- Fényő, I. S. (with Paganoni, Luigi) On the general solution of a functional equation which occurs in the theory of singular integral equations. **81g:39006**
- Gawron, Piotr Włodzimierz Solution of the equation $f^2 = h$ in the group of bijections of a set X . (Polish. Russian and English summaries) **81c:39004**
- Hoppe, Fred M. On a Schröder equation arising in branching processes. **81g:39007**
- Kallinowski, Józef (with Kuczma, Marek) Some remarks on continuous solutions of a functional equation. **81m:39007**
- Kuczma, Marek Regular fractional iteration of convex functions. **81m:39008**
- See also Kallinowski, Józef, **81m:39007**
- Nawrocki, Jan On the existence of C^r solutions of a functional equation. **81h:39007**
- Paganoni, Luigi See Fényő, I. S., **81g:39006**
- Rice, R. E. (with Schweizer, Berthold; Sklar, Abe) When is $f(f(x)) = ax^2 + bx + c$? **81c:39005**
- Schweizer, Berthold See Rice, R. E.; et al., **81c:39005**
- Sklar, Abe See Rice, R. E.; et al., **81c:39005**
- Turdza, Erwin See Choczewski, Bogdan; et al., **81h:39006**
- Węgrzyk, Roman See Choczewski, Bogdan; et al., **81h:39006**
- Zdan, Marek Cezary ★ Continuous and differentiable iteration semigroups. **81c:39006**

secondary classifications:

- Gallun, I. V. Multidimensional discrete systems with invariant measure. (Russian. English summary) **(81j:28020)**
- Goldstein, R. Permutability of entire functions of small growth. **(81c:30046)**
- Guckenheimer, John The bifurcation of quadratic functions. **(81h:58046)**

Ifevskii, L. I. Solutions of functional equations in various classes of entire functions. (Russian) (81c:39047)

Kobayashi, Tadashi Permutability and unique factorizability of certain entire functions. (81c:39051)

Kominek, Zygfryd Some theorems on differentiable solutions of a system of functional equations of n th order. (81c:39006)

Niederbichler, Günter See Reich, Ludwig. (81b:39005)

Reich, Ludwig Probleme der analytischen Iteration bei formal-biholomorphen und bei kontrahierenden Abbildungen. (81b:39009)

(with Niederbichler, Günter) Über multiplikative Funktionen von Automorphismen des Potenzreihenringes und invariante Funktionen analytischer Iterationen. (81b:39005)

Schroth, Peter On $(1, b_2)$ -replicative functions with isolated discontinuities. (81c:39008)

Smajdor, Wilhelmiana Analytic solutions of Schröder equation. (81f:39012)

39B20 Equations for one unknown function of one variable, rank greater than one

Aczel, Janos General solution of a system of functional equations satisfied by sums of powers on arithmetic progressions. 81m:39009

Babescu, Gh. See Filipescu, Avram. 81b:39009

Bacchelli, Barbara (with Paganoni, Luigi) Extension of solutions of some functional equations. (Italian summary) 81d:39003

Bühl, Edmund (with Rüthing, Dieter) Die Funktionalgleichung der Exponentialfunktion. 81a:39003

Daróczy, Zoltán (with Maksa, Gyula) Nonnegative information functions. 81b:39008
Über die stetigen Lösungen der Aczél-Benz'schen Funktionalgleichung. 81c:39005

Dhombres, J. G. Some aspects of functional equations—conditional Cauchy equations. (French summary) 81a:39004

Filipescu, Avram (with Babescu, Gh.) Some general properties of the solutions of the cosine functional equations. (Romanian. German summary) 81b:39009

Forti, Gian Luigi An existence and stability theorem for a class of functional equations. 81c:39006

Kannappan, P. Note on generalized information function. 81c:39007

Maksa, Gyula On near-derivations. 81m:39010

See also Daróczy, Zoltán. 81b:39008

McKiernan, M. A. General Pexider equations. I. Existence of injective solutions. 81f:39009a

General Pexider equations. II. An application of the theory of webs. 81f:39009b
Neunhöffer, Helmut Mittelwertsatz der Differentialrechnung und harmonisches Mittel. 81c:39003

Paganoni, Luigi See Bacchelli, Barbara. 81d:39003

Powzaka, Zdzisław Über stetige Lösungen der Funktionalgleichung $\varphi(x+y) = F(\varphi(x), \varphi(y))$. 81c:39008

Rathie, Pushpa N. See Sheng, Lillian T. 81m:39011

Rüthing, Dieter See Bühl, Edmund. 81a:39003

Sheng, Lillian T. (with Rathie, Pushpa N.) On the measurable solutions of certain functional equations. 81m:39011

Świątek, Halina On an equation of information theory. 81d:39004

secondary classifications:

Baker, John A. The stability of the cosine equation. (81m:39015)

Dai, Taen Yu Elementary functional equations on partially ordered linear algebra. (81b:06013)

Ger, Roman Almost additive functions on semigroups and a functional equation. (81c:39010)

Shimizu, Ryōichi Solution to a functional equation and its application to some characterization problems. (81j:60021)

Tardiff, Robert M. On a functional inequality arising in the construction of the product of several metric spaces. (81c:39013)

39B30 Equations for several unknown functions of one variable, systems

Ditor, Seymour Z. Some binary representations of real numbers and odd solutions of the functional equation $\varphi \circ f = g \circ \varphi$. 81a:39005

Janić, Radovan R. (with Pečarić, Josip E.) Some functional equations with several unknown functions. 81b:39010

Kominek, Zygfryd On the behaviour of C' -solutions of a system of functional equations. 81g:39008

Some theorems on differentiable solutions of a system of functional equations of n th order. 81c:39006

Lajkó, K. On the functional equation $f(x)g(y) = h(ax + by)k(cx + dy)$. 81k:39007

Pečarić, Josip E. See Janić, Radovan R. 81b:39010

Pejčuh, G. P. The general solution of a class of systems of nonlinear functional equations. (Russian) 81c:39009

secondary classifications:

Lester, J. A. The solution of a system of quadratic functional equations. (81g:39010)

39B40 Equations for functions of several variables

Aczel, Janos (with Wagner, Carl G.) A characterization of weighted arithmetic means. 81m:39012

Filipescu, Avram Sur un système d'équations fonctionnelles non-linéaire. 81g:39009

Frank, M. J. On the simultaneous associativity of $F(x, y)$ and $x + y - F(x, y)$. 81c:39004

Krapež, A. On solving a system of balanced functional equations on quasigroups. II. 81a:39006

Schroth, Peter On $(1, b_2)$ -replicative functions with isolated discontinuities. 81k:39008

Slimac, O. Sur une équation fonctionnelle cyclique pour une fonction vectorielle. 81c:39007

Wagner, Carl G. See Aczel, Janos. 81m:39012

secondary classifications:

Arora, Prem Nath See Taneja, Inder Jeet. (81b:94010)

Daróczy, Zoltán Über die stetigen Lösungen der Aczél-Benz'schen Funktionalgleichung. (81b:39005)

Ehanks, Bruce R. Branching and generalized-recursive inset entropies. (81f:94007)

Kannappan, P. On some generalized functional equations in information theory. (81j:94009)

Krapež, A. On solving a system of balanced functional equations on quasigroups. III. (81b:39012)

Sen, D. K. The special-relativistic velocity-addition law and a related functional equation. (81a:83004)

Taneja, Inder Jeet On information improvement of 2 and N revisions. (French summary) (81j:94011)

(with Arora, Prem Nath) Characterization of information improvement due to N revisions and its generalization by a functional equation. (81b:94010)

39B50 Functional equations on algebraic structures

Benz, Walter Über eine Funktionsgleichung von G. Aumann. 81m:39013

Cristici, Borislav See Gheorghiu, Octavian. 81b:39011

Ger, Roman Almost additive functions on semigroups and a functional equation. 81c:39010

Gheorghiu, Octavian (with Cristici, Borislav) Quelques considérations regardant l'équation fonctionnelle de Jensen-Carmichael. 81b:39011

Głowacki, Eugeniusz (with Kuczma, Marek) Some remarks on Hosszu's functional equation on integers. 81m:39014

Kania-Siuda, Maria Sur la commutativité de la solution de l'équation de translation. 81d:39005

Krapež, A. On solving a system of balanced functional equations on quasigroups. III. 81b:39012

Kuczma, Marek See Głowacki, Eugeniusz. 81m:39014

Lester, J. A. The solution of a system of quadratic functional equations. 81g:39010

Niederbichler, Günter See Reich, Ludwig. 81b:39005

Pilecka, Barbara Le prolongement de la solution de l'équation de translation. 81c:39011

Reich, Ludwig (with Niederbichler, Günter) Über multiplikative Funktionen von Automorphismen des Potenzreihenringes und invariante Funktionen analytischer Iterationen. 81b:39005

Székelyhidi, L. Almost periodic functions and functional equations. 81f:39010

Zurek-Etgens, Maria Sur une définition de remplissage de l'équation de translation. 81d:39006

secondary classifications:

Aczel, Janos General solution of a system of functional equations satisfied by sums of powers on arithmetic progressions. (81m:39009)

Bacchelli, Barbara (with Paganoni, Luigi) Extension of solutions of some functional equations. (Italian summary) (81d:39003)

Chen, Yi On characterizing near-fields. (81b:12021)

Dai, Taen Yu Elementary functional equations on partially ordered linear algebra. (81b:06013)

Ehanks, Bruce R. Branching measures of information on strings. (81d:94012)

Grzysiewicz, Andrzej (with Sikorski, Piotr) On some homomorphisms in Ehresmann groupoids. (81b:20110)

On some homomorphisms in product Brandt groupoids. (81b:20111)

McKiernan, M. A. General Pexider equations. I. Existence of injective solutions. (81f:39009a)

General Pexider equations. II. An application of the theory of webs. (81f:39009b)

Muhin, A. I. Solution of coefficientless equations in finitely determined quasigroups. (Russian) (81c:20053)

Paganoni, Luigi See Bacchelli, Barbara. (81d:39003)

Sikorski, Piotr See Grzysiewicz, Andrzej. (81b:20110)

Wood, G. R. A note on automorphisms of semigroups and near-rings of mappings. (81g:46034)

39B60 Matrix functional equations

Alizade, M. I. (with Ragimov, M. B.) A method of N. H. Abel for solving functional equations. (Russian) 81a:39007

Kareńska, Z. On a system of functional equations occurring in the theory of geometric objects. 81f:39011

Ragimov, M. B. See Alizade, M. I. 81a:39007

secondary classifications:

Kucharszewski, Mieczysław Remarks on the notion of the orientation of Klein's geometry. (Polish. Russian and English summaries) (81b:51004)

Stojaković, Mirko Elementary transformations and determinants. (Serbo-Croatian. English summary) (81k:15009)

39B70 Functional equations on abstract spaces or structures

Baker, John A. The stability of the cosine equation. 81m:39015

Kečkić, Jovan D. On some classes of linear equations. II. 81b:39013

Kramz, Przemysław Continuity of an additive function on a topological vector space. 81c:39005

Marchionna, Clelia Continuity of the solutions of a class of functional equations.

(Italian, English summary) **81i:39008**

Reyniers, H. Semilattices of modules and the solvability of the functional equation $\sum_{i=1}^n h_i \times \varphi \circ g_i = h$. **81i:39009**

Smajdor, Wilhelmina Analytic solutions of Schröder equation. **81i:39012**

Talpaal, S. On solutions of algebraic equations whose coefficients are germs of continuous functions. (Italian summary) **81i:39006**

secondary classifications:

Ahina, Claudi A characterization of the convolution. (Spanish) **(81m:44004)**

Chakrabarty, M. K. On solutions of certain functional equations. **(81m:54075)**

Elzanka, Bruce R. Branching and generalized-recursive inset entropies. **(81f:94007)**

Forti, Gian Luigi An existence and stability theorem for a class of functional equations. **(81i:39006)**

Gawron, Piotr Włodzimierz Solution of the equation $f^p = h$ in the group of bijections of a set X . (Polish, Russian and English summaries) **(81i:39004)**

Kaleva, Osmo On the functional equation $e^{f+g} = e^f e^g$. **(81i:47060)**

Lania-Shuda, Maria Sur la commutativité de la solution de l'équation de translation. **(81d:39005)**

Kučer, Miroslav Extensions of the Shannon entropy to semimetrized measure spaces. **(81m:94014a)**

Correction to "Extensions of the Shannon entropy to semimetrized measure spaces". **(81m:94014b)**

Nagy, B. On cosine operator functions. **(81f:47042)**

Nowicka, Krystyna Some integral-functional equation with an unknown function of several variables. **(81d:45021)**

Rice, R. E. (with Schweizer, Berthold; Sklar, Abe) When is $f(f(x)) = ax^2 + bx + c$? **(81i:39005)**

Schweizer, Berthold See Rice, R. E.; et al., **(81i:39005)**

Sklar, Abe See Rice, R. E.; et al., **(81i:39005)**

Subrahmanyam, P. V. An operator equation in a Tychonoff space. **(81j:54081)**

Sziz, Árpád (with Sziz, G.) Absolutely linear relations. **(81j:39005)**

Sziz, G. See Sziz, Árpád, **(81j:39005)**

Weerahandi, Samaradasa (with Zidek, James V.) A characterization of the general mean. (French summary) **(81a:60027)**

Zidek, James V. See Weerahandi, Samaradasa, **(81a:60027)**

39B99 None of the above, but in this section

Ahina, Claudi (with Bonet, E.) On sums of dependent uniformly distributed random variables. **81i:39012**

Bonet, E. See Ahina, Claudi, **81i:39012**

secondary classifications:

Cenzer, Douglas The stability problem for transformations of the circle. **(81b:58023)**

Ng, C. T. Measures of information with the branching property over a graph and their representations. **(81i:94012)**

39C05 Functional inequalities [See also 26Dxx.]

Brydak, Dobiesław On the homogeneous functional inequality. **81i:39013**

Forti, Costanza Borelli (with Guerraggio, Angelo) Regularity of the solutions of a class of functional inequalities. (Italian, English summary) **81j:39006**

Guerraggio, Angelo See Forti, Costanza Borelli, **81j:39006**

Janić, Radovan R. See Pečarić, Josip E., **81i:39014**

Kardos, Peter On the equality $\sum_{i=1}^n p_i f(p_i)/f(q_i) < 1$. **81d:39007**

Lomanovskii, G. Ja. Characterization of the power function by means of functional inequalities. (Russian) **81b:39007**

Pečarić, Josip E. (with Janić, Radovan R.) On a functional inequality. **81i:39014**

Tardiff, Robert M. On a functional inequality arising in the construction of the product of several metric spaces. **81i:39013**

secondary classifications:

Bondge, B. K. (with Pachpatte, B. G.; Walter, Wolfgang) On generalized Wendroff-type inequalities and their applications. **(81g:26007)**

Fischer, Pal (with Szklowski, Zbigniew) Christensen zero sets and measurable convex functions. **(81d:28013)**

Lupas, Alexandru On two inequalities of Karamata. **(81i:26017)**

Maksa, Gyula On near-derivations. **(81m:39010)**

Pachpatte, B. G. See Bondge, B. K.; et al., **(81g:26007)**

Pap, Endre Some contributions to the theory of n -convex functions. (Serbo-Croatian, English summary) **(81d:26066)**

Ros, Dieter K. Inequalities and identities for $y_n^2 - y_{n-1} y_{n+1}$. **(81d:33008)**

Szklowski, Zbigniew See Fischer, Pal, **(81d:28013)**

Walter, Wolfgang See Bondge, B. K.; et al., **(81g:26007)**

40-XX SEQUENCES, SERIES, SUMMABILITY

40-01 Elementary exposition, textbooks

secondary classifications:

Baren, S. A. ★ Введение в теорию суммируемости рядов. (Russian) [Introduction to the theory of summability of series] **(81j:40007)**

40-02 Advanced exposition (research surveys, monographs, etc.)

40-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Banach, Stefan The "supreme law" of Hołeń-Wroński. (Russian) **(81k:01022)**

Bochner, Solomon Fourier series came first. **(81b:01016)**

Mejlo, Lars C. Some fundamental theorems about real numbers and their history. (Danish, English summary) **(81j:01026a)**

Addendum to: "Some fundamental theorems about real numbers and their history". (Danish, English summary) **(81j:01026b)**

Petrova, S. S. (with Romanowska, D. A.) The universal Hołeń-Wroński series. (Russian) **(81k:01023)**

See also Banach, Stefan, **(81k:01022)**

Romanowska, D. A. See Petrova, S. S., **(81k:01023)**

40-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Minoil, Daniel Inductive formulae for general sum operations. **(81g:65002)**

40-06 Proceedings, conferences, etc.

secondary classifications:

(Kangro, G.) See Proceedings: Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators. **(81m:47001)**

Algebra ★ Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] **(81m:47001)**

Anniversary:

Birth of Gunnar Kangro ★ Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] **(81m:47001)**

Conference:

Methods of Algebra and Functional Analysis in the Study of Families of Operators ★ Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] **(81m:47001)**

Functional analysis ★ Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] **(81m:47001)**

Proceedings:

Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators ★ Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] **(81m:47001)**

Tarts ★ Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] **(81m:47001)**

40Axx Convergence and divergence of infinite limiting processes

40A05 Convergence and divergence of series and sequences

Ash, J. Marshall (with Sexton, Harlan) Termwise averages of two divergent series. **81c:40001**

Andriyaryana Moorthy, S. Infinite series and the derived set of the aggregate of the fractional parts of its partial sums. **81g:40001**

Avad, Laila S. A property of the product of two numerical series. (Russian, English summary) **81j:40001**

Brezinski, Claude Limiting relationships and comparison theorems for sequences. **81h:40001**

Budanu, George (with Drăghicescu, I. C.) On Kronecker's lemma. (Romanian) **81f:40001**

Drăghicescu, I. C. See Budanu, George, **81f:40001**

Găină, Stelian Some theorems on sequences. (Romanian) **81h:40002**

Hu, Mien Ch'ang (with Wang, Ju Kwei) On rearrangements of series. **81k:40001**

Jack, Bronisław Complex series and connected sets. IV. (Russian summary) **81h:40003**

Jeffreys, Bertha Letter to the editor. **81b:40001**

Klammer, Gabriel Summation of series. **81a:40001**

Mikusiński, Piotr Cauchy sequences in abelian groups. (Russian summary) **81f:40002**

Panahov, B. V. Convergence of series with respect to the system $f(nx)$ with monotone coefficients. (Russian) **81e:40002**

Phillip, J. R. The convergence and partial convergence of alternating series. **81h:40004**

Repinia, L. G. See Zamorović, T. S., **81h:40004**

Šalát, T. On statistically convergent sequences of real numbers. (Russian summary) **81k:40002**

Scharlau, Winfried Einige Betrachtungen zur Leibnizschen Reihe. **81m:40001**

Sexton, Harlan See Ash, J. Marshall, **81c:40001**

Sláček, Slavko On a hypothesis of D. Adamović concerning asymptotic behaviour of some complex sequences. **81h:40002**

Subrahmanyam, P. V. On the convergence of iterates. **81k:40003**

Thiemer, Jerzy Representation of series in the space E^* . (Polish, Russian and English summaries) **81h:40003**

Wang, Ju Kwei. See Hu, Mên Ch'ang. 81k:40001

Zamorotk, T. S. (with Repina, L. G.) On the theory of convergence for infinite numerical series. (Russian) 81b:40004

Zwengowski, Peter. Iterated absolute differences. 81c:40001

secondary classifications:

Alexis, G. On the absolute convergence of certain functional series. (81b:42040)

Antoni, Josef. Summability of subsequences. (Russian. English summary) (81c:40005)

Červeňanský, Jaroslav. Rearrangements of series and a topological characterization of the absolute convergence of series. (Slovak and Russian summaries) (81j:40002)

Delahaye, Jean-Paul. Liens entre la suite du rapport des erreurs et celle du rapport des différences. (English summary) (81c:65003)

Algorithmes pour suites non convergentes. (English summary) (81f:65005)

King, J. P. Probabilistic interpretation of some positive linear operators. (81f:41026)

Malcev, R. P. Conditionally convergent series in some Banach lattices. (Russian) (81c:46029)

Sharma, K. M. See Singh, Niranjana. (81c:42013)

Sidi, Avram. Convergence properties of some nonlinear sequence transformations. (81c:65003)

Singh, Niranjana (with Sharma, K. M.) Convergence of a trigonometric series in the metric space L . (Arabic summary) (81c:42013)

Whittington, S. G. See Wilker, J. B. (81c:26019)

Wilker, J. B. (with Whittington, S. G.) Extension of a theorem on supermultiplicative functions. (81c:26019)

40A10 Convergence and divergence of integrals

Bragimov, F. I. Connection between convergence distance and absolute convergence of a noneigenmultiple integral. (Russian. Azerbaijani and English summaries) 81b:40001

Kahane, Charles. Generalizations of the Riemann-Lebesgue and Cantor-Lebesgue lemmas. 81d:40001

Orudzhev, G. A. Determination of a convergence domain for some improper integrals. (Russian. Azerbaijani and English summaries) 81k:40004

Sidi, Avram. Extrapolation methods for oscillatory infinite integrals. 81m:40002

40A15 Convergence and divergence of continued fractions [See also 30B70.]

Batjuk, Ju. R. (with Oryčič, Ja. I.) Convergence of an integral continued fraction of Euler type in the space $C[a, b]$. (Russian) 81i:40002

Hloponin, S. S. Domains of convergence of continued fractions. (Russian) (See 81c:32001)

Mihal'čuk, R. I. (with Ševčuk, S. P.) Sufficient condition for the convergence of continued fractions in a space of continuous functions. (Russian) 81i:40003

Oryčič, Ja. I. See Batjuk, Ju. R. 81i:40002

Ševčuk, S. P. See Mihal'čuk, R. I. 81i:40003

secondary classifications:

Bodnar, D. I. A necessary criterion for convergence of branching continued fractions with positive components. (Russian) (81f:30003)

Gill, John. A generalization of certain corresponding continued fractions. (81d:30009)

Kučmins'ka, H. I. Expansion of a double power series into corresponding and associated branching continued fractions. (Russian) (81d:30010)

Siemaszko, Wojciech. Branched continued fractions for double power series. (81k:30006)

Thron, W. J. (with Waadeland, Haakon) Accelerating convergence of limit periodic continued fractions $K(a_n/1)$. (81c:30008)

Waadeland, Haakon. See Thron, W. J. (81c:30008)

Znojil, M. The harmonic quadrupole oscillator and its anharmonic multipole descendants. (81m:81019)

40A20 Convergence and divergence of infinite products

secondary classifications:

Gončar, A. A. (with López Lagomasino, Guillermo) Markov's theorem for multipoint Padé approximants. (Russian) (81j:41027)

López Lagomasino, Guillermo. See Gončar, A. A. (81j:41027)

40A25 Approximation to limiting values (summation of series, etc.) [For the Euler-Maclaurin summation formula, see 65B15.]

secondary classifications:

Aljantić, S. An asymptotic Mercerian theorem for the weighted means of slowly varying sequences. (81k:40010)

40A30 Convergence and divergence of series and sequences of functions

Červeňanský, Jaroslav. Rearrangements of series and a topological characterization of the absolute convergence of series. (Slovak and Russian summaries) 81j:40002

Chang, Y. F. (with Corliss, George F.) Ratio-like and recurrence relation tests for convergence of series. 81f:40004

Corliss, George F. See Chang, Y. F. 81f:40004

Rusev, Pet'ar K. Convergence and $(C, 1)$ -summability of Laguerre series on the boundaries of their regions of convergence. (Bulgarian. English summary) 81c:40002

secondary classifications:

Bochar, B. K. A generalization of a theorem of du Plessis on the convergence of Laplace series. (81b:42077)

Moran, Gadi. Continuous functions on countable compact ordered sets as sums of their increments. (81m:46043)

Rousseau-Egele, Jacques. Sur un théorème d'équidistribution forte. (English summary) (81c:10040)

40A99 None of the above, but in this section

Bhattacharyya, S. K. (with Lahiri, B. K.) Rearrangement of convergent series in topological groups. 81b:40005

Kocić, Ljubiša M. See Lacković, Ivan B. 81j:40003

Komkov, Vадim. A note on a formal manipulation of divergent series and integrals. 81c:40003

Lacković, Ivan B. (with Kocić, Ljubiša M.) On some linear transformations of quasimonotone sequences. 81j:40003

Lahiri, B. K. See Bhattacharyya, S. K. 81b:40005

Moran, Gadi. On a theorem of Steinitz and Levy. 81c:40004

Timmer, Jerzy. The proof for a theorem presented by Dvoretzky and Hanani. (Polish. Russian and English summaries) 81b:40005

secondary classifications:

Delahaye, Jean-Paul (with Germain-Bonne, B.) Résultats négatifs en accélération de la convergence. (English summary) (81k:65007)

Germain-Bonne, B. See Delahaye, Jean-Paul. (81k:65007)

Hofbauer, Josef. A short proof of the Lagrange-Good formula. (81c:05019)

Mastrolia, Giuseppe. On a linear positive operator. (Italian. English summary) (81i:47028)

Ram, Babu. Integrability of Rees-Stanojević sums. (81i:42012)

Schmidt, Hermann. Zur Theorie und Anwendung Bernoulli-Nörlundischer Polynome und gewisser Verallgemeinerungen der Bernoulli'schen und der Stirling'schen Zahlen. (81i:10017)

Sharma, B. L. Transformations of certain double series. (81j:40005)

40B05 Multiple sequences and series (should also be assigned at least one other classification number in this section)

Janušauskas, A. I. Summation of multiple power series. (Russian) 81b:40006

Nasibov, M. H. Summability of double series by the Bernstein-Rogosinski method. (Russian) 81j:40004

Sharma, B. L. Transformations of certain double series. 81j:40005

Slipenčuk, K. M. On invertibility conditions in the theory of absolute summability of double series. (Russian) 81d:40002

secondary classifications:

Kučmins'ka, H. I. Expansion of a double power series into corresponding and associated branching continued fractions. (Russian) (81d:30010)

Žižišvili, L. V. Summability by the Cesàro method of negative order of multiple orthogonal series. (Russian. Georgian and English summaries) (81j:40014)

40Cxx General summability methods

40C05 Matrix methods

Antoni, Josef. Summability of subsequences. (Russian. English summary) 81c:40005

Blöckli, N. N. Matrix methods of summing series that are uniformly translatable on the right, and one of their properties. (Russian) 81c:40006

Bollinger, Richard C. Sets of summability. 81b:40007

Boos, Johann. Eine Erweiterung des Satzes von Schur. (English summary) 81f:40003

Davidov, M. O. Conservative positive matrix methods of summability that are ineffective for certain sets of sequences. (Russian) 81c:40007

Conservative positive matrix methods of summability ineffective on classes of sequences. (Russian) 81k:40005

Hotčevnikova, N. N. Summation by $T(C)$ -class methods in linear topological spaces. (Russian summary) 81m:40003

Kızmaz, H. Some certain type of sequence spaces and matrix transformations. (Turkish summary) 81c:40008

Kotkowski, Bogdan (with Waszak, Aleksander) A remark on convex methods of summability. 81b:40008

Kuttner, B. (with Maddox, I. J.) Matrices with infinite norm. 81c:40003

(with Thorpe, B.) Strong convergence. 81a:40002

On Mercerian sets. II. 81m:40004

Maddox, I. J. See Kuttner, B. 81c:40003

Me'nik, V. I. Ineffectiveness and reversibility of matrices close to one another. (Russian) 81k:40006

Miller, Harry I. Summability of subsequences, rearrangements and stretchings of sequences. (Serbo-Croatian summary) 81m:40005

Mursaleen. Invariant means and some classes of matrices. 81k:40007

Rhoades, B. E. Hausdorff matrices as bounded operators over l . 81b:40009

Ruckle, William H. The bounded consistency theorem. 81f:40006

Sokolenko, O. I. K -matrices equivalent to convergence for bounded sequences and K -matrices equivalent to Cesàro matrices for bounded sequences. (Russian) 81f:40004

Sridhar, S. A matrix transformation between sequence spaces. 81c:40009

Terpe, F. On a suitable notion of convergence for the space of matrix summations. 81c:40005

Thorpe, B. See Kuttner, B. 81a:40002

Vlasenko, V. F. Summation of bounded divergent sequences with finite and infinite sets of partial limits. (Russian) 81k:40008

Waszak, Aleksander. See Kotkowski, Bogdan. 81b:40008

Wilansky, Albert. The μ property of FK spaces. 81k:40009

secondary classifications:

- Davidov, M. O. On inclusion of kernels of sequences given by regular matrices. (Russian) **81m:40009**
- Ganguly, Ashok On the matrix summability of Fourier series. **81m:42005**
- Khan, Huzoor H. (with Wafi, A.) On the degree of approximation by matrix means. **81e:42003**
- Maddox, I. J. Some analogues of Knopp's core theorem. **81m:40012**
- Men'šov, D. E. Limits of indeterminacy in measure of T -means of subseries of a trigonometric series. (Russian) **81e:42010**
- Mittal, M. L. See Prasad, G., **81d:42013**
- Prasad, G. (with Mittal, M. L.) On absolute matrix summability of a sequence of Fourier coefficients. **81d:42013**
- Sarapa, Nikola On the (c, α) summability of probability measures on compact semigroups. **81d:43002**
- Sweetis, J. On the relationship between a summability matrix and its transpose. **81c:40010**
- Tomović-Miller, Naza On strong regularity. (Serbo-Croatian summary) **81j:40012**
- Tomić, Miloš A generalized logarithmic summation method and saturation classes in the spaces C and L_p . (Russian. Serbo-Croatian summary) **81b:41056**
- Wafi, A. See Khan, Huzoor H., **81e:42003**
- Trudy Mat. Inst. Steklov. See Men'šov, D. E., **81e:42010**

40C10 Integral methods

40C15 Function-theoretic methods (including power series methods and semicontinuous methods)

- Ishiguro, Kazuo (with Tietz, Hubert) Diskontinuierliche (J, p_k) -Matrizen vom Typ M . **81a:40003**
- Tietz, Hubert See Ishiguro, Kazuo, **81a:40003**

40C99 None of the above, but in this section

- Holčevnikova, N. N. An example of a sequence that is not summable by the positive regular method to an element of its kernel. (Russian) **81m:40006**
- Riazuddin, Mohammad Matrix transformations between sequence spaces and F_β -convergence. **81d:40003**
- Rudakov, S. A. Construction of the M_β summability method for a bounded sequence with respect to a given core. (Russian) **81b:40006**

secondary classifications:

- Raimi, Ralph A. Factorization of summability-preserving generalized limits. **81m:46027**

40Dxx Direct theorems on summability

40D05 General theorems

- Baron, S. A. ★ Введение в теорию суммируемости рядов. (Russian) [Introduction to the theory of summability of series] **81j:40007**
- Hirokawa, Hiroshi On inclusion relations between two methods of summability. **81j:40008**
- Krátký, Dező Elementary methods of the theory of series in approximation theory. (Hungarian) **81m:40007**
- Men'šov, D. E. Properties of subsequences of partial sums of function series. (Russian) **81j:40009**
- Ng, Peng Nung Matrix transformations on Cesàro sequence spaces of a nonabsolute type. **81e:40008**
- Szabó, Daniel On the rearrangement of infinite series. **81j:40010**

secondary classifications:

- Riazuddin, Mohammad Matrix transformations between sequence spaces and F_β -convergence. **81d:40003**

40D09 Structure of summability fields

- Buntinas, Martin Cesàro sectional convergence in Cesàro summability fields of negative order. **81b:40010**
- Mefnik, V. I. Ineffectiveness of matrices constructed on the basis of a matrix of weighted arithmetic means. (Russian) **81b:40006**

40D10 Tauberian constants and oscillation limits

- Davidov, M. O. On inclusion of kernels of sequences given by regular matrices. (Russian) **81m:40009**

40D15 Convergence factors and summability factors

- Ahmad, Z. U. (with Khan, Mohd. Mobin-ur-Rahman) On absolute Abel summability factors in a sequence. **81a:40004**
- Chandra, Prem (with Mohapatra, Ram Narayan) On absolute summability factors of infinite series and their application to Fourier series. II. (French summary) **81m:40010**
- Jakimovski, A. (with Russell, D. C.) On beta-duals of matrix fields. **81d:40004**
- Khan, Mohd. Mobin-ur-Rahman See Ahmad, Z. U., **81a:40004**
- Mohapatra, Ram Narayan See Chandra, Prem, **81m:40010**
- Russell, D. C. See Jakimovski, A., **81d:40004**

secondary classifications:

- Prakash, Ved On the absolute summability of a series related to Fourier series. **81f:42008**

40D20 Summability and bounded fields of methods

- Hensz, E. On limitation methods in the sense of Volkov on the locally compact spaces. **81h:40007**

secondary classifications:

- Bollinger, Richard C. Sets of summability. **81b:40007**
- Kutner, B. (with Maddox, I. J.) Matrices with infinite norm. **81e:40003**
- Maddox, I. J. See Kutner, B., **81e:40003**

40D25 Inclusion and equivalence theorems

- Aljančić, S. An asymptotic Mercerian theorem for the weighted means of slowly varying sequences. **81c:40010**
- Sukla, Indulata Generalization of a theorem of McFadden. **81e:40004**
- Sweetis, J. On the relationship between a summability matrix and its transpose. **81c:40010**
- Valjović, Fikret $S^{n, \beta}$ inclusion of summability methods. (Russian. Serbo-Croatian summary) **81f:40005**

secondary classifications:

- Boos, Johann Eine Erweiterung des Satzes von Schur. (English summary) **81f:40003**
- Jakimovski, A. (with Russell, D. C.) On beta-duals of matrix fields. **81d:40004**
- Lee, Peng Yee Köthe duals and matrix transformations. **81f:46011**
- Nasibov, M. H. Summability of double series by the Bernstein-Rogosinski method. (Russian) **81j:40004**
- Rudakov, S. A. Construction of the M_β summability method for a bounded sequence with respect to a given core. (Russian) **81b:40006**
- Russell, D. C. See Jakimovski, A., **81d:40004**
- Tanaka, Minoru On generalized Nörlund methods of summability. **81e:40009**

40D99 None of the above, but in this section

- Lupaş, Alexandru On convexity preserving matrix transformations. **81b:40007**

40Exx Inversion theorems

40E05 Tauberian theorems, general

- Bingham, Nicholas H. Integrability theorems for convolutions. **81g:40002**
- (with Teugels, Jozef L.) Mercerian and Tauberian theorems for differences. **81c:40011**
- Burlai, M. F. A theorem of Tauberian type for (\bar{K}, p_m, q_n) -methods for the summability of double series. (Russian) **81e:40006**
- Jakimovski, A. (with Tietz, Hubert) Regularly varying functions and power series methods. **81b:40011**
- Kohaniv'skiĭ, O. P. A Tauberian theorem for a class of (J, p_n) summability methods. (Russian) **81b:40012**
- Kratz, W. The Tauberian theorems which interrelate different Riesz means. II. **81a:40005**
- Meĭnik, V. I. General Tauberian theorems for absolute summability. (Russian) **81b:40013**
- Tauberian theorems for summability methods of the type of Abel's method. (Russian) **81e:40005**
- Mihailin, G. O. Conditions for coincidence of the core of a sequence with the cores of its (R, p_m, α) - and (J, p_n) -averages. (Russian) **81b:40014**
- Generalization of Tauberian theorems for a class of (J, p_n) -summability. (Russian) **81b:40008**
- See also Teskenko, L. S., **81e:40006a**
- Pak, I. N. Weakly oscillating functions. (Russian) **81j:40011**
- Petersen, G. M. A Tauberian theorem for Cesàro and Abel summability. **81a:40006**
- Samundarov, E. G. Some Tauberian theorems in the form of explicit inequalities. (Russian. Tajiki summary) **81b:40015**
- Teskenko, L. S. (with Mihailin, G. O.) (C) -property of the (A, α) - and $(A \times (C, \alpha))$ -methods of summation of series, and Tauberian type theorems. (Russian) **81e:40006a**
- Teugels, Jozef L. See Bingham, Nicholas H., **81c:40011**
- Tietz, Hubert See Jakimovski, A., **81b:40011**

secondary classifications:

- Chandra, Prem (with Sharma, M. M.) Criteria for the absolute convergence of Legendre series. **81c:42035**
- Davidov, M. O. Conservative positive matrix methods of summability that are ineffective for certain sets of sequences. (Russian) **81e:40007**
- Meĭnik, V. I. Mercer theorems on classes of sequences. (Russian) **81e:40007a**
- Mercer theorems on classes of sequences. (Russian) **81e:40007b**
- Sharma, M. M. See Chandra, Prem, **81c:42035**
- Šipenčuk, K. M. On invertibility conditions in the theory of absolute summability of double series. (Russian) **81d:40002**
- Tammerald, I. Some Tauberian remainder theorems for gap series. (Russian. Estonian and English summaries) **81b:40016**

40E10 Growth estimates

secondary classifications:

- Luther, Wolfram A Tauberian remainder theorem for the Hankel transform. (81b:44006)
 Stadtmüller, Ulrich (with Trautner, Rolf) Tauberian theorems for Laplace transforms. (81f:44006)
 Thurnheer, Peter Une généralisation du théorème de Wiener-Ikehara. (English summary) (81c:10051)
 Trautner, Rolf See Stadtmüller, Ulrich, (81f:44006)

40E15 Lacunary inversion theorems

- Mei'nik, V. I. Mercer theorems on classes of sequences. (Russian) 81c:40007a
 Mercer theorems on classes of sequences. (Russian) 81c:40007b
 Tammerald, I. Some Tauberian remainder theorems for gap series. (Russian. Estonian and English summaries) 81b:40016

secondary classifications:

- Burliak, M. F. A theorem of Tauberian type for (\bar{R}, p_m, q_n) -methods for the summability of double series. (Russian) (81c:40006a)
 Mihalín, G. O. Conditions for coincidence of the core of a sequence with the cores of its (R, p_n, α) - and (J, p_n) -averages. (Russian) (81b:40014)
 See also Teskenko, L. S., (81c:40006a)
 Teskenko, L. S. (with Mihalín, G. O.) (C) -property of the (A, α) - and $(A \times (C, \alpha))$ -methods of summation of series, and Tauberian type theorems. (Russian) (81c:40006a)

40E20 Tauberian constants

- Hamad, Hanna See Sherif, Soraya, 81a:40007
 Sherif, Soraya (with Hamad, Hanna) On the ordinary and the absolute Tauberian constants for Hausdorff transformations. 81a:40007

40E99 None of the above, but in this section

- Davidov, M. O. (with Mihalín, G. O.) The core of Voronoï means for a bounded sequence. (Russian) 81c:40008
 Mihalín, G. O. See Davidov, M. O., 81c:40008
 Tall, A. A method for constructing convex families of summability methods. (Russian. Estonian and English summaries) 81f:40006

secondary classifications:

- Blockii, N. N. Matrix methods of summing series that are uniformly translatable on the right, and one of their properties. (Russian) (81c:40006)
 Davidov, M. O. Conservative positive matrix methods of summability ineffective on classes of sequences. (Russian) (81c:40005)

40F05 Absolute and strong summability

- Das, G. See Mohapatra, Ram Narayan, 81c:40012
 Gajewski, Ryszard On strong Abel approximation by orthogonal series. 81k:40011
 Mohapatra, Ram Narayan (with Das, G.) Absolute summability factors. II. 81c:40012
 Nagaiński, A. F. Inclusion of the summability method $|W, p|$ in the method $|A^*|$ and Tauberian theorems. (Russian) 81f:40007
 Tandori, Károly On a problem of B. I. Golubov. (Russian summary) 81b:40009
 Tanović-Miller, Naza On strong regularity. (Serbo-Croatian summary) 81j:40012

secondary classifications:

- Ahmad, Z. U. (with Siddiqui, Z. U.) Absolute summability factors of infinite series by Nörlund means. (81b:40010)
 Beohar, B. K. (with Jadia, B. L.) On the absolute Nörlund summability of Laguerre series. (81b:42006)
 Červeňanský, Jaroslav Rearrangements of series and a topological characterization of the absolute convergence of series. (Slovak and Russian summaries) (81j:40002)
 Chandra, Prem Absolute summability by Riesz means. (81b:42041)
 Hirokawa, Hiroshi On inclusion relations between two methods of summability. (81j:40008)
 Jadia, B. L. See Beohar, B. K., (81b:42006)
 Kuttner, B. (with Thorpe, B.) Strong convergence. (81a:40002)
 Lal, Shiva Narain (with Singh, K. N.) Generalised Lipschitz class of functions and the absolute summability of Fourier series by Nörlund means. (81j:42017)
 Mishra, Babhan Prasad Some generalizations on a scale of Abel type summability methods. (81c:40013)
 Siddiqui, Z. U. See Ahmad, Z. U., (81b:40010)
 Singh, K. N. See Lal, Shiva Narain, (81j:42017)
 Singh, Tikam The absolute Cesàro summability of Laguerre series. (81b:42005)
 Thorpe, B. See Kuttner, B., (81a:40002)
 Yadav, Sarjoo Prasad On $[C, 1]$ -summability of factored Jacobi series. (Hindi. English summary) (81b:42009)

40Gxx Special methods of summability

40G05 Cesàro, Euler, Nörlund and Hausdorff methods

- Ahmad, Z. U. (with Siddiqui, Z. U.) Absolute summability factors of infinite series by Nörlund means. 81b:40010

- Beohar, B. K. (with Sharma, K. G.) On Nörlund summability of Jacobi series. 81j:40010
 Choudhary, B. (with Kuttner, B.) Some remarks on the ordered set of Nörlund methods. 81b:40017

- Kuttner, B. Sequences which are summable by some regular Nörlund method. 81g:40003

See also Choudhary, B., 81b:40017

- Lotocki, V. A. Conditions for the coincidence of the kernels of the Borel and Euler-Knopp means. (Russian. English summary) 81c:40008
 Maddox, I. J. Generalized Nörlund means and consistency theorems. 81a:40008
 Men'shov, D. E. A relationship between the convergence of series of partial sums of a numerical series and its summability by (C, α) and Abel methods. (Russian. English summary) 81c:40009
 Milovidova, I. P. On the set of limit points of the sequence of arithmetic means of a numerical series. (Russian. Armenian and English summaries) 81a:40009
 Parameswaran, Mangalam R. On the connectedness of certain sets in summability theory. 81f:40008
 Sharma, K. G. See Beohar, B. K., 81j:40013
 Siddiqui, Z. U. See Ahmad, Z. U., 81b:40010
 Tanaka, Minoru On generalized Nörlund methods of summability. 81c:40009
 Tanović-Miller, Naza Inclusion relations for some composed matrix transformations. (Serbo-Croatian summary) 81m:40011
 Žitavský, L. V. Summability by the Cesàro method of negative order of multiple orthogonal series. (Russian. Georgian and English summaries) 81j:40014

secondary classifications:

- Beohar, B. K. (with Jadia, B. L.) Degree of approximation of a function by Cesàro mean of Laguerre expansion. (81b:41018)
 (with Mishra, K. K.) On Nörlund summability of Jacobi series. (Hindi. English summary) (81f:42023)
 Bhatt, S. N. On the absolute summability of a Laplace series by Nörlund mean. (81g:42025)
 Buntinas, Martin Cesàro sectional convergence in Cesàro summability fields of negative order. (81b:40010)
 Chandra, Prem (with Mohapatra, Ram Narayan) Absolute Nörlund summability factor of Fourier series. (81k:42009)
 Dahmen, Wolfgang Polynomials as linear combinations of multivariate B-splines. (81g:41019)
 Hoffmann, Andor Application of $(C, 1)$ -summable series to the study of heat transfer in a piping system embedded in a layer. (Hungarian. English summary) (81c:80009)
 Jadia, B. L. See Beohar, B. K., (81b:41018)
 Jain, H. C. A note on Nörlund summability of the conjugate series of a Fourier series. (Hindi. English summary) (81d:42017)
 Kaul, B. N. (with Singh, Vijendra) Best approximation by a saturation class of polynomial operators. (81f:41028)
 Kotkowski, Bogdan (with Waszak, Aleksander) A remark on convex methods of summability. (81b:40008)
 Lal, Shiva Narain (with Singh, K. N.) Generalised Lipschitz class of functions and the absolute summability of Fourier series by Nörlund means. (81j:42017)
 Markiewicz, Teresa Sur l'approximation des fonctions par les moyennes de Nörlund des séries de Fourier et leurs conjuguées. (81k:42008)
 Mishra, K. K. See Beohar, B. K., (81f:42023)
 Mohapatra, Ram Narayan See Chandra, Prem, (81k:42009)
 Nagaiński, A. F. Inclusion of the summability method $|W, p|$ in the method $|A^*|$ and Tauberian theorems. (Russian) (81f:40007)
 Patel, C. M. See Patel, R. K., (81d:42037)
 Patel, R. K. (with Patel, C. M.) Summability of orthogonal series by Euler method. (81d:42037)
 Prakash, Ved On the absolute summability of a series related to Fourier series. (81f:42008)
 Rusev, Pet'r K. Convergence and $(C, 1)$ -summability of Laguerre series on the boundaries of their regions of convergence. (Bulgarian. English summary) (81c:40002)
 Sharma, Sushil On absolute Nörlund summability factor of Legendre series. (81g:42025)
 See also Shrivastava, K. K., (81b:42082)
 Shrivastava, K. K. (with Sharma, Sushil) On absolute Cesàro summability of Laplace series. (81b:42082)
 Siddiqui, Rafat Nabi On determination of the jump of a function of Wiener's class. (Arabic summary) (81d:42010)
 Singh, A. P. See Tripathi, L. M., (81f:42006)
 Singh, K. N. See Lal, Shiva Narain, (81j:42017)
 Singh, Tikam Absolute Cesàro summability of Laguerre series. (Hindi. English summary) (81b:42043)
 Singh, Vijendra See Kaul, B. N., (81f:41028)
 Sokolenko, O. I. K -matrices equivalent to convergence for bounded sequences and K -matrices equivalent to Cesàro matrices for bounded sequences. (Russian) (81f:40004)
 Survillo, G. S. Cesàro summability of series with respect to periodic multiplicative orthonormal systems. (Russian) (81c:42012)
 Tripathi, L. M. (with Singh, A. P.) On $(N, 1/(n+1))$ summability of the conjugate derived Fourier series. (81f:42006)
 Waszak, Aleksander See Kotkowski, Bogdan, (81b:40008)

40G10 Abel, Borel and power series methods

- Gawronski, Wolfgang (with Siebert, H.; Trautner, Rolf) An inclusion relation for Abel, Borel, and Lambert summability. 81c:40010
 Mishra, Babhan Prasad Some generalizations on a scale of Abel type summability methods. 81c:40013
 Murav, É. B. Borel summation of n -multiple series, and entire functions associated with them. (Russian) 81k:40012

- Siebert, H. See Gawronski, Wolfgang; et al., 81i:40010
 Sokal, Alan D. An improvement of Watson's theorem on Borel summability. 81h:40011
 Tanaka, Chuji On the boundary behavior of Taylor series of regular functions of some classes in the unit circle. 81j:40015
 Trutner, Rolf See Gawronski, Wolfgang; et al., 81i:40010

secondary classifications:

- Alahverdiev, Dž. E. (with Džabar-zade, R. M.) Summation by Abel's method of multiple expansions of series in eigen- and adjoint elements of operators that are polynomially dependent on a spectral parameter. (Russian. Azerbaijani and English summaries) (81d:47015)
 Džabar-zade, R. M. See Alahverdiev, Dž. E., (81d:47015)
 Ishiguro, Kazuo (with Tietz, Hubert) Diskontinuierliche (J, p_k) -Matrizen vom Typ M. (81a:40003)
 Lotocki, V. A. Conditions for the coincidence of the kernels of the Borel and Euler-Knopp means. (Russian. English summary) (81i:40008)
 Men'šov, D. E. A relationship between the convergence of series of partial sums of a numerical series and its summability by (C, α) and Abel methods. (Russian. English summary) (81i:40009)
 Mukhopadhyay, S. N. On the Abel limit of the terms of trigonometric series. (81c:42011)
 Petersen, G. M. A Tauberian theorem for Cesàro and Abel summability. (81a:40006)
 Tietz, Hubert See Ishiguro, Kazuo, (81a:40003)

40G99 None of the above, but in this section

- Kolomin'skii, O. P. A property of a class of Voronoï summability methods and its applications. (Russian) 81b:40018
 Matveeva, L. V. Dependence of the convergence rate of Gronwall polynomials on properties of the mapping function. (Russian) 81k:40013
 Mihaila, G. O. Conditions for the equivalence of (R, p_n) and (J, p_n) methods of summability. (Russian) 81b:40019
 Narang, S. Limitation theorems for absolute Nörlund summability. 81e:40010
 Turpin, H. A class of transformations of summability systems. (Russian. Estonian and English summaries) 81e:40011

secondary classifications:

- Čaturvedi, M. D. Absolute Riesz summability factors for a Fourier series and its conjugate series. (81k:42010)
 Əralidze, A. D. Multiple lacunary trigonometric series. (Russian. Georgian and English summaries) (81g:42014)
 Nishov, M. H. Summability of double series by the Bernstein-Rogosinski method. (Russian) (81j:40004)

40H05 Functional analytic methods in summability

- Maddox, I. J. Some analogues of Knopp's core theorem. 81m:40012
 Snyder, A. K. (with Wilansky, Albert) The Mazur-Orlicz bounded consistency theorem. 81g:40004
 Wilansky, Albert See Snyder, A. K., 81g:40004

secondary classifications:

- Čerčinský, Jaroslav Rearrangements of series and a topological characterization of the absolute convergence of series. (Slovak and Russian summaries) (81j:40002)
 Kutner, B. (with Thorpe, B.) Strong convergence. (81a:40002)
 Thorpe, B. See Kutner, B., (81a:40002)

40J05 Summability in abstract structures [See also 43A55, 46A35, 46B15.]

secondary classifications:

- Holčevnikova, N. N. Summation by $T(C)$ -class methods in linear topological spaces. (Russian summary) (81m:40003)
 Pokalo, A. K. Summation of integrals in a Banach space with a Cesàro approximate unit. Multiplicative operators. Bernstein's theorem. I. (Russian. English summary) (81k:46011a)
 Summation of integrals in a Banach space with a Cesàro approximate unit. Asymptotic formulas. Jackson type theorem. II. (Russian. English summary) (81k:46011b)

41-XX APPROXIMATIONS AND EXPANSIONS [For all approximation theory in the complex domain, see 30E05 and 30E10; for all trigonometric approximation and interpolation, see 42A10 and 42A15; for numerical approximation, see 65Dxx.]

41-01 Elementary exposition, textbooks

41-02 Advanced exposition (research surveys, monographs, etc.)

- Thomirov, V. M. Theory of extremal problems, and approximation theory. (Russian) 81g:41001
 Zelle, Roland ★Discontinuous Čebyšev systems. 81a:41001

secondary classifications:

- Lorentz, George G. (with Riemenschneider, Sherman D.) Recent progress in Birkhoff interpolation. (81a:41006)

- Nikol'skii, S. M. ★Приближение функций многих переменных и теоремы вложения. (Russian) [Approximation of functions of several variables and imbedding theorems] (81f:46046)

Riemenschneider, Sherman D. See Lorentz, George G., (81a:41006)

41-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- Dolženko, E. P. (with Ul'janov, P. L.) Some questions of the theory of functions. (Russian) (81i:26002)
 Ul'janov, P. L. See Dolženko, E. P., (81i:26002)

41-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

- Ferrero, Oscar (with Rossati, Franco) Polynomial approximations of definite functions by means of differential equations. (Italian. English summary) (81b:65018)
 Rossati, Franco See Ferrero, Oscar, (81b:65018)

41-06 Proceedings, conferences, etc.

- (Cheney, E. W.) See Approximation theory, 81m:41001
 (DeVore, Ronald A.) See Quantitative approximation, 81i:41001
 (Lorentz, George G.) See Approximation theory, 81m:41001
 (Meinardus, Günter) See Approximation in Theorie und Praxis, 81a:41002
 (Nikol'skii, V. N.) See Application of functional analysis in approximation theory, 81k:41001
 (Scherer, Karl) See Quantitative approximation, 81i:41001
 (Shisha, Oved) See Turán memorial volume, 81j:41001
 (Steckin, S. B.) See Approximation of functions by polynomials and splines, 81b:41001
 (Turán, Pál) See Turán memorial volume, 81j:41001
 Application of functional analysis in approximation theory ★Применение функционального анализа в теории приближений. (Russian) [Application of functional analysis in approximation theory] 81k:41001
 Approximation of functions by polynomials and splines ★Приближение функций полиномами и сплайнами. (Russian) [Approximation of functions by polynomials and splines] 81b:41001
 Approximation in Theorie und Praxis ★Approximation in Theorie und Praxis. (German) [Approximation in theory and practice] 81a:41002
 Approximation theory ★Proceedings of the Conference on Approximation Theory. (Chinese) 81m:41002
 ★Применение функционального анализа в теории приближений. (Russian) [Application of functional analysis in approximation theory] 81k:41001
 ★Approximation theory. III. 81m:41001
 Austin, Tex. ★Approximation theory. III. 81m:41001
 Birthday:
 Lorentz, George G. ★Approximation theory. III. 81m:41001
 Bonn ★Quantitative approximation. 81i:41001
 Conference:

- Approximation Theory ★Proceedings of the Conference on Approximation Theory. (Chinese) 81m:41002
 ★Approximation theory. III. 81m:41001
 Functional analysis ★Применение функционального анализа в теории приближений. (Russian) [Application of functional analysis in approximation theory] 81k:41001
 Hangzhou ★Proceedings of the Conference on Approximation Theory. (Chinese) 81m:41002
 Polynomials ★Приближение функций полиномами и сплайнами. (Russian) [Approximation of functions by polynomials and splines] 81b:41001
 Proceedings:
 Conference on Approximation Theory ★Proceedings of the Conference on Approximation Theory. (Chinese) 81m:41002
 Quantitative approximation ★Quantitative approximation. 81i:41001
 Siegen ★Approximation in Theorie und Praxis. (German) [Approximation in theory and practice] 81a:41002
 Splines ★Приближение функций полиномами и сплайнами. (Russian) [Approximation of functions by polynomials and splines] 81b:41001
 Symposium:
 Approximation in Theorie und Praxis ★Approximation in Theorie und Praxis. (German) [Approximation in theory and practice] 81a:41002
 Quantitative Approximation ★Quantitative approximation. 81i:41001
 Turán memorial volume ★P. Turán memorial volume. 81j:41001

secondary classifications:

- (Collatz, Lothar) See Numerical methods of approximation theory, (81d:65002)
 (Meinardus, Günter) See Numerical methods of approximation theory, (81d:65002)
 (Sierst, A. N.) See Constructive theory of functions and functional analysis, (81j:46002)
 (Werner, Helmut) See Numerical methods of approximation theory, (81d:65002)
 Approximation theory ★Numerical methods of approximation theory. Vol. 5. (81d:65002)
 Conference:
 Numerical Methods of Approximation Theory ★Numerical methods of approximation theory. Vol. 5. (81d:65002)
 Constructive theory of functions and functional analysis ★Конструктивная теория функций и функциональный анализ. Вып. 2. (Russian) [Constructive theory of functions and functional analysis. No. 2] (81j:46002)

Functional analysis ★ Конструктивная теория функций и функциональный анализ. Вып. 2. (Russian) [Constructive theory of functions and functional analysis. No. 2] (81j:46002)

Numerical methods of approximation theory ★ Numerical methods of approximation theory. Vol. 5. (81d:65002)

Oberwolfach ★ Numerical methods of approximation theory. Vol. 5. (81d:65002)

41A05 Interpolation [See also 42A15 and 65D05.]

Agrawal, P. N. See Rathore, R. K. S., 81b:41004

Arioka, Shigekatsu See Ogawa, Shiro; et al., 81e:41004

Asimov, L. Superharmonic interpolation in subspaces of $C(X)$. 81c:41001

Balász, Catherine On an extremal problem connected with the fundamental polynomials of interpolation. 81c:41002

Bazzenski, G. (with Delvos, F.-J.; Posdorf, H.) Boolean methods in bivariate reduced Hermite interpolation. 81g:41002

Bazeltov, M. S. See Totkov, G. A., 81j:41007

Beaton, R. K. Addendum: "The asymptotic cost of Lagrange interpolatory side conditions" [J. Approx. Theory 20 (1977), no. 3, 288-295; MR 56 #923]. 81m:41003

Berman, D. L. Everywhere convergent Hermite-Fejér interpolation processes. (Russian) 81a:41003

Extended Hermite-Fejér interpolation processes constructed for $f(x) = x^k$. (Russian) 81c:41003

Investigation of the Hermite-Fejér process constructed in an extended system of ultraspherical nodes. (Russian) 81i:41002

de Boor, Carl Polynomial interpolation. 81c:41004

Bortnik, L. I. On the question of convergence of the Fejér process. (Russian) 81a:41004

Burkovskaja, V. L. See Makarov, V. L.; et al., 81d:41001

Chauhan, B. P. S. (with Srivastava, K. B.) Uniform convergence and rapidity of convergence of Grunwald-type operators on extended Chebyshev nodes of second kind. 81a:41005

Chen, Tian Ping On Varma's lacunary interpolation by splines. (Chinese. English summary) 81j:41002

Delvos, F.-J. See Bazzenski, G.; et al., 81g:41002

Drols, Wolfgang Zur Hermite-Birkhoff-Interpolation: DMS-Inzidenzmatrizen. 81j:41003

Gervais, R. (with Rahman, Q. I.; Schmeisser, Gerhard) Simultaneous interpolation and approximation. 81c:41005

Güntner, R. Evaluation of Lebesgue constants. 81i:41003

Halász, Gábor Statistical interpolation. 81j:41004

Heindel, Gerhard Interpolation and approximation by piecewise quadratic C^1 -functions of two variables. 81j:41005

Herming, Ulrich Interpolation by smooth functions under restrictions on the derivatives. 81e:41001

Hwang, Jun Shung A Turán's problem on the 0-2 interpolation based on zeros of Jacobi-polynomials. 81c:41006

Iliev, G. L. Exact estimates for monotone interpolation. 81e:41002

Kida, Sôsburo See Ogawa, Shiro; et al., 81e:41004

Klunnik, O. O. See Makarov, V. L.; et al., 81d:41001

Korzan, I. I. Estimate of approximation in the mean by interpolated polynomials for a class of functions. (Russian) 81g:41003

Kumar, Virendra (with Mathur, K. K.) Convergence of the Lagrange interpolation on the extended Chebyshev nodes. 81f:41001

(with Mathur, K. K.) Uniform convergence of modified Hermite-Fejér interpolation process omitting derivatives. 81b:41002

Loeb, H. L. A differential equation approach to the Bernstein problem. 81f:41002

Lorentz, George G. (with Riemenschneider, Sherman D.) Recent progress in Birkhoff interpolation. 81a:41006

(with Riemenschneider, Sherman D.) Birkhoff interpolation: some applications of coalescence. 81j:41006

Makarov, V. L. (with Burkovskaja, V. L.; Klunnik, O. O.) Hermitian interpolation in the class of x^k -harmonic functions of a given smoothness. (Russian) 81d:41001

Malozëmov, V. N. (with Pevnyi, A. B.) Spline interpolation. (Russian) 81g:41004a

See also Vasil'ev, A. A.; et al., 81g:41004b

Mathur, K. K. See Kumar, Virendra, 81b:41002 and Kumar, Virendra, 81f:41001

Meinardus, Günter (with Merz, Gerhard) Hermite-Interpolation mit periodischen

Spline-Funktionen. (English summary) 81g:41005

Merz, Gerhard See Meinardus, Günter, 81g:41005

Mills, T. M. Quasi-Hermite-Fejér interpolation. 81g:41006

Nielson, Gregory M. The side-vertex method for interpolation in triangles. 81e:41003

Ogawa, Shiro (with Kida, Sôsburo; Arioka, Shigekatsu) On some conditions for

polynomial interpolation. 81e:41004

Panow, Eli Conditionally poised Birkhoff interpolation problems. 81b:41003

Pevnyi, A. B. See Malozëmov, V. N., 81g:41004a and Vasil'ev, A. A.; et al., 81g:41004b

Pilibek, S. S. Convergence of Lagrange interpolational processes with respect to Jacobi

nodes. (Russian) 81m:41004

Divergence of Lagrange interpolation processes on sets of second category. (Russian) 81a:41007

Tests for the convergence of interpolation processes. (Russian) 81c:41007

Pimenova, L. M. Lebesgue functions for some interpolation polynomials in two

variables. (Russian) 81c:41008

Posdorf, H. See Bazzenski, G.; et al., 81g:41002

Prasad, Jagdish See Varma, A. K., 81e:41005

Privalov, A. I. Convergence of Lagrange interpolation processes. (Russian) 81a:41008

Approximation of functions by interpolation polynomials. 81g:41007

Rahman, Q. I. See Gervais, R.; et al., 81c:41005

Rathore, R. K. S. (with Agrawal, P. N.) The unsettled problem of M. G. Krein on nonnegative polynomials in T -systems. 81b:41004

Riemenschneider, Sherman D. See Lorentz, George G., 81a:41006 and Lorentz, George G., 81j:41006

Sallay, M. Über Hermite-Fejérsche Interpolation. 81m:41005

Scherer, R. (with Zeller, Karl) Der Einsequenzensatz in der Birkhoff-Interpolation. 81c:41009

Schmeisser, Gerhard See Gervais, R.; et al., 81c:41005

Šeĭtman, B. Abstract interpolation theory. (Russian. Estonian and English summaries) 81g:41008

Ševaldin, V. T. Extremal interpolation with smallest value of the norm of a linear differential operator. (Russian) 81k:41002

Srivastava, K. B. See Chauhan, B. P. S., 81a:41005

Szabados, J. On some convergent interpolatory polynomials. 81g:41009

Totkov, G. A. (with Bazeltov, M. S.) Optimal polynomial interpolation of functions of two variables. (Russian) 81j:41007

Trigub, R. M. The comparison principle and some questions of the theory of approximation of functions. (Russian) 81i:41004

Varma, A. K. (with Prasad, Jagdish) A contribution to the problem of L. Fejér on Hermite-Fejér interpolation. 81c:41005

Vasil'ev, A. A. (with Malozëmov, V. N.; Pevnyi, A. B.) Interpolation and approximation by spline functions of an arbitrary defect. (Russian. English summary) 81g:41004b

Vasil'zenko, L. B. Interpolation on closed sets. (Russian) 81c:41010

Vértesi, P. Hermite-Fejér and Lagrange interpolations. 81f:41003

Hermite-Fejér type interpolations. I. 81b:41005a

Hermite-Fejér type interpolations. II. 81b:41005b

Hermite-Fejér type interpolations. III. 81b:41005c

p -normal point systems. 81k:41003

On Hermite-Fejér and Lagrange interpolatory processes. 81b:41006

Note on mean convergence of Lagrange parabolas. 81c:41011

Watkins, David S. A generalization of the Bramble-Hilbert lemma and application to multivariate interpolation. 81e:41006

Zeller, Karl See Scherer, R., 81c:41009

secondary classifications:

Balász, Catherine Approximation in L_2 -space by interpolatory type operators. (81j:41033)

Cavaretta, Alfred S., Jr. (with Micchelli, Charles A.; Sharma, Ambikeshwar) Multivariate interpolation and the Radon transform. II. Some further examples. (81m:41037)

(with Micchelli, Charles A.; Sharma, Ambikeshwar) Multivariate interpolation and the Radon transform. (81m:41036)

Daško, A. N. An interpolation formula of Thiele type. (Russian) (81i:65007)

Dem'janovič, Ju. K. Construction of homogeneous spaces of local functions and inverse approximation theorems. (Russian) (81d:41024)

Fishburn, Peter C. Approximations of multiattribute utility functions. (81i:90023)

Ganev, H. G. (with Georgiev, Kr.) Exact smooth interpolation. Interpolation by expansion into a Maclaurin series. (Bulgarian. Russian and English summaries) (81g:65013)

Georgiev, Kr. See Ganev, H. G., (81g:65013)

Goodenough, S. J. (with Mills, T. M.) The asymptotic behaviour of certain interpolation polynomials. (81k:41015)

Goodman, T. N. T. Necessary conditions for the convergence of cardinal Hermite splines as their degree tends to infinity. (81b:41012)

Graves-Morris, P. R. Practical, reliable, rational interpolation. (81j:65025)

Grundy, R. E. (with Phillips, G. M.) Application of Hermite approximation to a boundary value problem. (81m:65135)

Iliev, G. L. Partially monotone interpolation. (81a:41014)

Kaliničenko, L. I. Necessary and sufficient conditions for convergence of an interpolation series for a generalization of the Abel-Gončarov problem. (Russian) (81f:30033)

Micchelli, Charles A. See Cavaretta, Alfred S., Jr.; et al., (81m:41036) and Cavaretta, Alfred S., Jr.; et al., (81m:41037)

Mills, T. M. See Goodenough, S. J., (81k:41015)

Müller, Hans Michael Lineare abhängige Punktfunktionen bei zweidimensionalen Interpolations- und Approximationsproblemen. (81m:41038)

Myers, Diane-Claire (with Roulier, John A.) Markov-type inequalities and the degree of convex spline interpolation. (81e:41025)

Neuman, Edward Convex interpolating splines of arbitrary degree. (German summary) (81e:41018)

Neval, Paul G. On an extremal problem. (81e:42035)

Nielson, Gregory M. Minimum norm interpolation in triangles. (81g:65014)

Phillips, G. M. See Grundy, R. E., (81m:65135)

Prasad, Jagdish On the rate of convergence of interpolation polynomials of Hermite-Fejér type. (81a:41015)

Roulier, John A. See Myers, Diane-Claire, (81e:41025)

Scherer, R. (with Zeller, Karl) Two-dimensional grids for polynomials. (81m:65017)

Sharma, Ambikeshwar See Cavaretta, Alfred S., Jr.; et al., (81m:41036) and Cavaretta, Alfred S., Jr.; et al., (81m:41037)

Zeller, Karl See Scherer, R., (81m:41009)

41A10 Approximation by polynomials [For approximation by trigonometric polynomials, see 42A10.]

Aparicio Bernardo, Emiliano A general theorem in the theory of approximations of L_p functions by means of polynomials with integral coefficients. (Spanish) 81m:41006

Baimakova, I. B. Approximation of continuous functions by linear polynomial methods of approximation on an interval. (Russian. English summary) 81a:41009

Beaton, R. K. The degree of approximation by polynomials increasing to the right of the interval. 81a:41010

Bojanov, Borislav D. A generalization of Chebyshev polynomials. 81a:41011

Brosowski, Bruno On simultaneous best approximation. 81b:41007

Dimitrov, Dimitar G. (with Popov, V. A.) A generalization of Timan's theorem for

approximation of functions by algebraic polynomials. **81g:41010**

- Ferguson, Le Baron O. Approximation by integral Müntz polynomials. **81d:41002**
 Uniform and L_p approximation for generalized integral polynomials. **81c:41012**
 ★ Approximation by polynomials with integral coefficients. **81g:41011**
 Approximation by polynomials with integral coefficients and digital filter design. **81j:41008**

- Floroff, L. I. See Koval'čuk, R. N., **81c:41014**
 Fuchs, W. H. J. On Chebyshev approximation on several disjoint intervals. **81f:41004**
 Goetgheluck, Pierre "Bonnes" et "mauvaises" fonctions-poids. **81h:41004**
 Golitschek, Manfred Approximation durch komplexe Exponentialsummen und zulässige Koeffizientenrestriktionen. **81j:41009**
 Jackson's theorem for polynomials and exponential sums with restricted coefficients. **81a:41012**

Approximation by incomplete polynomials. **81f:41005**

- Grenez, Francis Inscription optimale d'un polynôme entre deux courbes données. **81j:41010**

- Hill, D. (with Passow, Eli; Raymon, L.) Correction to our paper: "Approximation with interpolatory constraints" [Illinois J. Math. **20** (1976), no. 1, 65-71; MR **52** #8727]. **81c:41013**

- Hlawka, Edmund Weierstraßcher Approximationssatz und Gleichverteilung. (English summary) **81a:41013**

- Hodak, L. B. Structural characteristics of certain classes of functions in the metric of L_p for $0 < p < 1$. (Russian) **81i:41005**

- Hovotov, A. P. The set of polynomials of best approximation for certain continuous functions of two variables. (Russian) **81h:41001**

- Hwang, Jun Shung (with Pan, Ch'iao Sung; Wu, L. S.) An extension of Bernstein-Müntz-Szász theorem. **81e:41007**

- Ilier, G. L. Partially monotone interpolation. **81a:41014**

- Koval'čuk, R. N. (with Filozof, L. I.) Simultaneous approximation of functions and their derivatives in the L_p metric. (Russian) **81c:41014**

- Kortunec, V. V. An investigation of N. I. Ahiezer's polynomials and their generalizations—3-snakes. (Russian) **81c:41015**

- Lachance, M. (with Saff, E. B.; Varga, Richard S.) Bounds for incomplete polynomials vanishing at both endpoints of an interval. **81f:41006**

- Lewanowicz, Stanislaw Properties of some polynomial projections. **81f:41007**

- Mercer, A. McD. Approximation on the semi-infinite interval. **81j:41011**

- Napalkov, V. V. Approximation of functions of several variables, with account taken of the growth of coefficients of approximating aggregates. (Russian) **81e:41008**

- Natanson, G. I. See Žuk, V. V., **81d:41004**

- Nikolčeva, M. G. Parametric approximation of a function and monotone interpolation. (Russian) **81g:41012**

- Oliver, J. A note on the signs of truncated Chebyshev polynomials. **81h:41002**

- Ollender, B. P. Linear processes of approximation of functions of several variables. (Russian) **81b:41008**

- Pan, Ch'iao Sung See Hwang, Jun Shung; et al., **81e:41007**

- Passow, Eli See Hill, D.; et al., **81c:41013**

- Péngov, S. A. Approximation by linear methods of functions that are continuous on a closed interval. (Russian) **81c:41016**

- The multidimensional Jackson theorem for linear polynomial approximations. (Russian) **81h:41003**

- Popov, V. A. See Dimitrov, Dimitar G., **81g:41010**

- Prasad, Jagdish On the rate of convergence of interpolation polynomials of Hermite-Fejér type. **81a:41015**

- Raymon, L. See Hill, D.; et al., **81c:41013**

- van Rossum, H. Orthogonal expansions in indefinite inner product spaces. **81b:41009**

- Saff, E. B. (with Varga, Richard S.) Uniform approximation by incomplete polynomials. **81a:41016**

- See also Lachance, M.; et al., **81f:41006**

- Saxena, R. B. (with Srivastava, K. B.) On interpolation operators. II. A proof of Timan's theorem for differentiable functions. **81g:41013**

- Schmidt, Darrell Strong unicity and Lipschitz conditions of order $\frac{1}{2}$ for monotone approximation. **81a:41017**

- Schoenberg, I. J. On Chebyshev and Markov-type problems for polynomials in a circular ring. **81b:41010**

- Siniskii, E. S. Uniform approximation by polynomials on a segment of a function of Mittag-Leffler type. (Russian) **81j:41012**

- Snol, E. E. Approximation of functions by homogeneous polynomials and series in homogeneous polynomials. (Russian) **81k:41005**

- Srivastava, K. B. A proof of Telyakovski-Gopengauz theorem through interpolation. **81e:41009**

- See also Saxena, R. B., **81g:41013**

- Stens, R. L. (with Wehrens, M.) Legendre transform methods and best algebraic approximation. **81j:41013**

- Strukov, L. I. (with Timan, A. F.) Sharpening and generalization of some theorems of approximation by polynomials of S. N. Bernstein. (Russian) **81d:41003**

- Švedov, A. S. Jackson's theorem in L^p , $0 < p < 1$, for algebraic polynomials and orders of comonotone approximations. (Russian) **81c:41017**

- Timan, A. F. See Strukov, L. I., **81d:41003**

- Varga, Richard S. See Saff, E. B., **81a:41016** and Lachance, M.; et al., **81f:41006**

- Wall, A. Saturation of local approximation by linear positive operators of Jackson type. **81j:41040**

- Wang, Ren Hong The degree of approximation by Hermite-Fejér interpolating polynomials. (Chinese) **81f:41008**

- Wehrens, M. See Stens, R. L., **81j:41013**

- Wu, L. S. See Hwang, Jun Shung; et al., **81e:41007**

- Zapota, Guido Fundamental seminorms. **81f:41009**

- Žuk, V. V. (with Natanson, G. I.) On the question of approximation in an integral metric of functions specified on an interval. (Russian. English summary) **81d:41004**

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- Andreev, Andrei St. Stability of best approximations in relation to Hausdorff distance. (Russian) **(81f:41029)**
- Aparicio Bernardo, Emiliano Three theorems on approximation in the space L_p by means of polynomials with integer coefficients. (Spanish) **(81b:41063)**
- Aron, Richard M. Polynomial approximation and a question of G. E. Shilov. **(81d:46023)**
- Bacopoulos, A. (with Zahar, R. V. M.) An error analysis for absolute and relative approximation. **(81b:65014)**
- Bankov, N. G. Hausdorff polynomials and digital filters design. **(81g:41032)**
- Batšev, I. M. Mean approximation of functions by algebraic polynomials in domains with a quasiconformal boundary. (Russian. Azerbaijani and English summaries) **(81f:30037)**
- Bazil'kov, M. S. See Totkov, G. A., **(81j:41007)**
- Berman, D. L. Extended Hermite-Fejér interpolation processes constructed for $f(x) = x^k$. (Russian) **(81c:41003)**
- de Boor, Carl Polynomial interpolation. **(81c:41004)**
- Brosowski, Bruno (with Deutsch, Frank) An elementary proof of the Stone-Weierstrass theorem. **(81j:46006)**
- Butzer, P. L. (with Stens, R. L.) Chebyshev transform methods in the solution of the fundamental theorem of best algebraic approximation in the fractional case. **(81b:41047)**
- Černikov, M. S. Best approximation of a function defined on a finite set. (Russian) **(81c:41055)**
- Dahmen, Wolfgang Trigonometric approximation with exponential error orders. II. Properties of asymptotically optimal processes: impossibility of arbitrarily good error estimates. **(81d:42004)**
- Dem'janovič, Ju. K. Construction of homogeneous spaces of local functions and inverse approximation theorems. (Russian) **(81d:41024)**
- Deutsch, Frank See Brosowski, Bruno, **(81j:46006)**
- DeVore, Ronald A. $L_p[-1, 1]$ approximation by algebraic polynomials. **(81d:41021)**
- Dupont, Todd (with Scott, L. Ridgway) Polynomial approximation of functions in Sobolev spaces. **(81b:65014)**
- Dražić, V. K. The constructive theory of functions on closed sets of the complex plane. (Russian) **(81b:30001)**
- Behavior of the set of extremal polynomials with respect to a T -system in the presence of constraints. (Russian) **(81j:41030)**
- Felbecker, Günter Linearkombinationen von iterierten Bernsteinoperatoren. (English summary) **(81c:41049)**
- Ferrero, Oscar (with Rossati, Franco) Polynomial approximations of definite functions by means of differential equations. (Italian. English summary) **(81b:65018)**
- Gajewski, Ryszard On strong Abel approximation by orthogonal series. **(81k:40011)**
- Giroux, André (with Rahman, Q. I.; Schmeisser, Gerhard) On Bernstein's inequality. **(81c:30009)**
- Görlich, E. (with Markett, C.) On approximation by Cesàro means of the Laguerre expansion and best approximation. **(81f:42024)**
- Gróf, J. Über Approximation durch Polynome mit Belegungsfunktion. **(81j:41038)**
- Gupta, Sharda See Prabhakar, T. R., **(81m:05011)**
- Homagk, Fritz Zur intuitionistischen Kennzeichnung reeller Funktionen auf substantiellen Intervallen. **(81f:03069)**
- Hwang, Jun Shung A Turán's problem on the 0-2 interpolation based on zeros of Jacobi-polynomials. **(81c:41006)**
- Ilier, G. L. Exact estimates for monotone interpolation. **(81e:41002)**
- Kojagin, S. V. Estimates of derivatives of polynomials. (Russian) **(81j:26015)**
- Kristiansen, G. K. Some inequalities for algebraic and trigonometric polynomials. **(81c:42001)**
- Lebedev, N. A. A statement of a problem of Čebyšev approximation. (Russian. English summary) **(81i:41022)**
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- On the degree of approximation with Hermite interpolatory side conditions. (81c:41030)
- Bojanov, Borislav D. A generalization of Chebyshev polynomials. (81a:41011)
- Dunham, Charles B. Density on $[0, \infty]$ of rational functions with one fixed pole. (81h:41035)
- Ferguson, Le Baron O. Uniform and L_p approximation for generalized integral polynomials. (81c:41012)
- Goodman, T. N. T. (with Lee, Seng Luan) Some extremal problems involving perfect splines. (81h:41004)
- Gorbaičuk, V. I. Direct and inverse approximation theorems by solutions of boundary value problems for some elliptic equations. (Russian) (81c:35041)
- Hornung, Ulrich Interpolation by smooth functions under restrictions on the derivatives. (81c:41001)
- Ilev, G. L. Partially monotone interpolation. (81a:41014)
- Lee, Seng Luan See Goodman, T. N. T., (81h:41004)
- Martirosoj, V. A. Uniform approximations by quasipolynomials with integral coefficients. (Russian) (81c:42019)
- Pacevič, E. L. See Aksent'ev, L. A., (81i:30070)
- Schmidt, Darrell Strong unicity and Lipschitz conditions of order $\frac{1}{2}$ for monotone approximation. (81a:41017)
- Schwartz, Leonard W. See Vanden-Broeck, Jean-Marc, (81h:41013)
- Vanden-Broeck, Jean-Marc (with Schwartz, Leonard W.) A one-parameter family of sequence transformations. (81h:41013)

41A30 Approximation by other special function classes

- Berezovskij, A. I. (with Daniš'čenko, L. S.; Duš'kaja, V. A.; Ivanov, V. V.) Approximation of functions. (Russian) (81f:41022)
- Burkovskaja, V. L. See Makarov, V. L.; et al., (81c:41044)
- Butzer, P. L. (with Stens, R. L.; Wehrens, M.) Approximation by algebraic convolution integrals. (81h:41021)
- Chen, Tian Ping Approximating continuous functions by Haar series. (Chinese) (81j:41031)
- Crandall, Michael G. (with Pazy, A.) An approximation of integrable functions by step functions with an application. (81c:41041)
- Crone, L. See Sullivan, J.; et al., (81m:41021)
- Dahmen, Wolfgang (with Scherer, Karl) Best approximation by piecewise polynomials with variable knots and degrees. (81f:41023)
- Daniš'čenko, L. S. See Berezovskij, A. I.; et al., (81f:41022)
- Dolženko, E. P. (with Sevast'janov, E. A.) Approximations in the Hausdorff metric. (Russian) (81a:41030)
- Duš'kaja, V. A. See Berezovskij, A. I.; et al., (81f:41022)
- Erice Rodríguez, F. Javier Approximation by F -polynomial functions. (Spanish) (81m:41019)
- Gabriljuk, V. T. Approximation of continuous periodic functions by trigonometric polynomials. (Russian) (81f:41024)
- Gauthier, P. M. (with Hengartner, Walter) Uniform harmonic approximation on unbounded sets. (81a:41031)
- v. Goltschek, Manfred Approximation by imaginary exponential sums. (81b:41051)
- Hatamov, A. Approximation of functions with a convex derivative by means of splines. (Russian) (81j:41032)
- Hengartner, Walter See Gauthier, P. M., (81a:41031)
- Ivanov, V. V. See Berezovskij, A. I.; et al., (81f:41022)
- Jalilov, J. See Sullivan, J.; et al., (81m:41021)
- Klunnik, O. O. See Makarov, V. L.; et al., (81c:41044)
- Landers, D. (with Rogge, L.) Best approximants in L_p -spaces. (81c:41042)
- Lavoie, Mario Problème d'approximation pondérée généralisée pour les espaces d'Orlicz. (81h:41022)
- Lundin, L. R. (with Stenger, Frank) Cardinal-type approximations of a function and its derivatives. (81c:41043)
- Makarov, V. L. (with Burkovskaja, V. L.; Klunnik, O. O.) An interpolation problem in a class of X^* -harmonic functions. (Russian) (81c:41044)
- Mallavin, Paul Approximation polynomiale pondérée et produits canoniques. (81f:41025)
- Melnardus, Günter Computation of the norms of some spline interpolation operators. (81c:41045)
- Mihlin, S. G. Constants in estimates of the error of variational-grid approximation. (Russian) (81g:41028)
- Nürnberg, Günther Continuous selections for the metric projection and alternation. (81f:41017)
- Ostrovčik, L. A. Asymptotic equalities in approximating functions of H^* classes by the de la Vallée Poussin sums. (Russian. English summary) (81c:41046)

- Pary, A. See Crandall, Michael G. 81c:41041
- Pobereil, S. V. Some estimates of an approximation of functions of class $W_p^r(\Omega)$ in a domain with a conic point and an edge. (Russian. English summary) 81b:41018
- Rogge, L. See Landers, D. 81c:41042
- Ruhm, V. L. Diameters of sets in spaces of periodic functions. (Russian) 81m:41020
- Ryženko, N. D. Approximation of functions of several variables by Walsh-Paley polynomials. (Russian) 81d:41027
- Sapilid, T. M. Approximation of functions of Hölder classes by Steklov sums. (Russian) 81h:41023
- Scherer, Karl. See Dahmen, Wolfgang. 81f:41023
- Serav'janov, E. A. See Dolženko, E. P. 81a:41030
- Stenger, Frank. See Landin, L. R. 81c:41043
- Stens, R. L. See Butzer, P. L.; et al. 81h:41021
- Sullivan, J. (with Crone, L.; Jalickee, J.) Approximation of the unit step function by a linear combination of exponential functions. 81m:41021
- Wehrens, M. See Butzer, P. L.; et al. 81h:41021
- Zalik, R. A. Weighted polynomial approximation on unbounded intervals. 81h:41024
- Approximation by nonfundamental sequences of translates. 81a:41032

secondary classifications:

- Aparicio Bernardo, Emiliano. A general theorem in the theory of approximations of L_p functions by means of polynomials with integral coefficients. (Spanish) (81m:41006)
- Bartel, M. W. (with Henry, Myron S.) Continuity of the strong unicity constant on $C(X)$ for changing X . (81c:41037)
- Binn, Julius R. See Walter, Gilbert G. (81b:62057)
- Burkovskaja, V. L. See Makarov, V. L.; et al. (81d:41001)
- Cao Jia Ding. Solution of an approximation problem of J. Favard. (Chinese) (81b:42026)
- Cheng, Stephen W. See Ebenfeld, Jerome. (81f:65033)
- Crawford, Charles R. See Dunham, Charles B. (81f:65011)
- Dunham, Charles B. (with Crawford, Charles R.) Minimax approximation by a semicircle. (81f:65011)
- Ebenfeld, Jerome (with Cheng, Stephen W.) General moment methods for a class of nonlinear models. (81f:65033)
- Fed'ko, V. V. See Rvačor, V. L. (81i:41008)
- Ferguson, Le Baron O. ★ Approximation by polynomials with integral coefficients. (81g:41011)

Approximation by polynomials with integral coefficients and digital filter design. (81j:41008)

- Gervais, R. (with Rahman, Q. I.; Schmeisser, Gerhard) Simultaneous interpolation and approximation. (81c:41005)
- Hedberg, Lars Inge. Capacities and approximation by analytic and harmonic functions. (81b:30042)
- Henry, Myron S. See Bartel, M. W. (81c:41037)
- Klunnik, O. O. See Makarov, V. L.; et al. (81d:41001)
- Makarov, V. L. (with Burkovskaja, V. L.; Klunnik, O. O.) Hermitian interpolation in the class of x^* -harmonic functions of a given smoothness. (Russian) (81d:41001)
- Melardus, Günter (with Taylor, G. D.) Optimal partitioning of Newton's method for calculating roots. (81j:65069)
- Nazarenko, N. A. Deviation of a parametric parabolic Hermite spline from a polygonal path in the Hausdorff metric. (Russian) (81c:41016)
- O'Farrell, Anthony G. Estimates for capacities, and approximation in Lipschitz norms. (81d:30071)
- Prager, Milan. Universally optimal approximation of functionals. (Czech and Russian summaries) (81c:41068)
- Rahman, Q. I. See Gervais, R.; et al. (81c:41005)
- Ramazanov, M. D. Finite-difference approximations of multipliers. (Russian) (81a:42019)
- Rvačor, V. L. (with Fed'ko, V. V.) Solution of boundary value problems by means of generalized piecewise-Hermite interpolation. (Russian) (81i:41008)
- Saff, E. B. (with Varga, Richard S.) Uniform approximation by incomplete polynomials. (81a:41016)
- Schmeisser, Gerhard. See Gervais, R.; et al. (81c:41005)
- Schmidt, Darrell. An existence theorem for Chebyshev approximation by interpolating rationals. (81b:41050)
- Smekov, V. V. Approximation of piecewise smooth functions by eigenelements of two Sturm-Liouville problems. (Russian) (81k:34020)
- Šaol, Ě. Ě. Approximation of functions by homogeneous polynomials and series in homogeneous polynomials. (Russian) (81k:41005)
- Taylor, G. D. See Melardus, Günter. (81j:65069)
- Trigub, R. M. The comparison principle and some questions of the theory of approximation of functions. (Russian) (81i:41004)
- Varga, Richard S. See Saff, E. B. (81a:41016)
- Walter, Gilbert G. (with Blum, Julius R.) Probability density estimation using delta sequences. (81b:62057)
- Wiggins, Kenneth L. Best L_p approximate solutions of nonlinear integro-differential equations. (81h:45025)
- Wulbert, Daniel E. The rational approximation of real functions. (81a:41026)
- Xie, Ting Fan. Pavlovskii's approximation method. (Chinese) (81c:42004)
- Yang, Yi Qun. Uniform approximation of a class of functions by Cesàro means of negative order for Fourier series. (Chinese) (81c:42005)
- Zalik, R. A. On fundamental sequences of translates. (81d:42021)

41A35 Approximation by operators (in particular, by integral operators)

- Arestov, V. V. Approximation of operators of convolution type by linear bounded operators. (Russian) 81g:41029
- Balazs, Catherine. Approximation in L_2 -space by interpolatory type operators. 81j:41033
- Berens, H. (with DeVore, Ronald A.) Quantitative Korovkin theorems for positive linear operators on L_p -spaces. 81g:41030
- DeVore, Ronald A. See Berens, H. 81g:41030

- Dudas, V. O. Approximation of periodic functions of Hölder classes by de la Vallée Poussin sums. (Russian) 81h:41025
- Gabaila, V. N. Optimal methods for calculating values of the operator Ux if x is given with an error. Differentiation of functions defined with an error. (Russian) 81h:41012
- Gusak, I. Ja. (with Šalkin, Ju. A.) Korovkin systems in certain finite-dimensional spaces. (Russian) 81i:41019
- Ismail, Mowad E. H. Polynomials of binomial type and approximation theory. 81a:41033
- King, J. P. Probabilistic interpretation of some positive linear operators. 81f:41026
- Korovkin, P. P. Erratum: "The Gibbs phenomenon and the order of approximation of functions by linear means" [Application of functional analysis in approximation theory, No. 4, pp. 60-61, Kalinin. Gos. Univ., Kalinin, 1974; MR 58 #29645]. (Russian) 81j:41034
- Kovačuk, B. V. (with Lisevič, L. M.) Compactness and normality of S^p -almost periodic matrices. (Ukrainian. Russian summary) 81b:41052
- Labuker, L. G. Korovkin sets in the space of continuous functions for operators of class S_m^0 . (Russian) 81h:41026
- Lisevič, L. M. See Kovačuk, B. V. 81b:41052
- Mamedov, G. M. See Mamedov, R. G. (See 80d:00021)
- Mamedov, R. G. (with Mamedov, G. M.) The order of approximation of conjugate functions by conjugate m -singular integrals. (Russian) (See 80d:00021)
- The degree of saturation of linear operators that are invariant with respect to shift. (Russian) (See 80d:00021)
- (with Orudžev, G. N.) Saturation classes of linear operators giving a high order of approximation in a space. (Russian) (See 80d:00021)
- A remark on the degree of saturation of m -singular integrals. (Russian) (See 80d:00021)
- Orudžev, G. N. See Mamedov, R. G. (See 80d:00021)
- Rathore, R. K. S. (with Singh, O. P.) On convergence of derivatives of Post-Widder operators. 81j:41035
- Sapilid, T. M. Sharp upper bounds of deviations of conjugate Riesz sums over classes of differentiable functions. (Russian) 81c:41047
- Šalkin, Ju. A. See Gusak, I. Ja. 81i:41019
- Shi, Xian Liang. Asymptotic expansions of some linear operators. (Chinese) 81c:41033
- Singh, O. P. See Rathore, R. K. S. 81j:41035
- Sonowski, A. Finite-dimensional approximation theory with application to stabilization of systems with time delay. 81m:41022
- Subbotin, Ju. N. Extremal problems of the theory of approximation of functions with incomplete information. (Russian) 81g:41031
- Tomić, Miloi. Best approximation of a function and approximation by certain singular integrals. (Russian. English and Serbo-Croatian summaries) 81j:41036
- Zaderej, P. V. Approximation of periodic functions of several variables by positive polynomial operators. (Russian) 81c:41048

secondary classifications:

- Axler, Sheldon (with Jewell, Nicholas; Shields, Allen L.) The essential norm of an operator and its adjoint. (81k:47007)
- Brosowski, Bruno. The completion of partially ordered vector spaces and Korovkin's theorem. (81d:06030)
- Džumagulov, A. K. (with Falaleev, L.) Approximation of functions of the class $W(r)$ by Cesàro integrals. (Russian) (81b:42008)
- Evans, John W. (with Gragg, William B.; LeVeque, Randall J.) On least squares exponential sum approximation with positive coefficients. (81b:65015)
- Falaleev, L. See Džumagulov, A. K. (81b:42008)
- Gragg, William B. See Evans, John W.; et al. (81b:65015)
- Hudnazarov, S. H. Some questions of the approximation of functions by generalized Weierstrass operators. (Russian) (81c:41034)
- Jewell, Nicholas. See Axler, Sheldon; et al. (81k:47007)
- Joni, S. A. Multivariate exponential operators. (81c:41050)
- Labuker, L. G. Some necessary and sufficient criteria for Korovkin sets for operators of class S_m^0 . (Russian) (81i:41030)
- LeVeque, Randall J. See Evans, John W.; et al. (81b:65015)
- Müller, Manfred W. On the degree of L_p -approximation by integral Schoenberg splines. (81c:41079)
- Saakamp, Klaus. Best approximation in the space of bounded operators and its applications. (81b:41031)
- Schuback, Robert. Suboptimal exponential approximations. (81b:65017)
- Shields, Allen L. Approximation by compact operators and the space $H^\infty + C$. (81m:47024)

See also Axler, Sheldon; et al. (81k:47007)

41A36 Approximation by positive operators

- Abdullozov, Š. Approximation of differentiable functions on a semiaxis. (Russian. Tajiki summary) 81a:41034
- Approximation by positive operators of Bernstein type polynomials on the entire axis. (Russian. Tajiki summary) 81a:41035
- Altomare, Francesco. Théorèmes de convergence de type Korovkin relativement à une application linéaire positive. (Italian summary) 81d:41028
- Azharov, T. A. (with Mansurov, H.) Approximation of continuous functions by linear operators of a certain class. (Russian) 81j:41037
- Barnsley, Michael F. (with Bessis, Daniel) Constructive methods based on analytic characterizations and their application to nonlinear elliptic and parabolic differential equations. 81d:41029
- Bessis, Daniel. See Barnsley, Michael F. 81d:41029
- Bleimann, G. (with Butzer, P. L.; Hahn, L.) A Bernstein-type operator approximating continuous functions on the semi-axis. 81m:41023
- Butzer, P. L. See Bleimann, G.; et al. 81m:41023
- Felbecker, Günter. Linearkombinationen von iterierten Bernsteinoperatoren. (English

- summary) **81c:41049**
Flüssner, Hans-Otto Korovkin-closures of finite sets. **81d:41030**
Gassanov, G. M. Approximation of locally-monotone functions by linear positive operators in L . (Russian) **81b:41053**
Größ, J. Über Approximation durch Polynome mit Belegungsfunktion. **81j:41038**
Hahn, L. See **Bleimann, G.**; et al., **81m:41023**
Hsiao, Sheng Yen Approximation of unbounded functions and applications to representations of semigroups. **81f:41027**
Joni, S. A. Multivariate exponential operators. **81c:41050**
Khan, R. A. Some probabilistic methods in the theory of approximation operators. **81m:41024**
Levitskii, B. On the behavior of a certain class of approximation operators for discontinuous functions. **81b:41054**
Maier, Volker The L_p norm of the approximation error for linear positive operators. **81d:41031**
Mansurov, H. See **Azhurov, T. A.** **81j:41037**
Mastrolia, Giuseppe On the remainders in some linear approximation formulas. (Italian. English summary) **81b:41027**
 (with Occorsio, Mario Rosario) A generalization of the Stancu operator. (Italian. English summary) **81c:41034**
Occorsio, Mario Rosario See **Mastrolia, Giuseppe**. **81c:41034**
Radatz, P. (with Wood, B.) Approximating derivatives of functions unbounded on the positive axis with linear operators. **81c:41036**
Ustinov, G. M. Convergence of positive operators. (Russian) **81j:41039**
Veselinov, V. M. A general method for determining the best constants in linear methods of Hausdorff approximation. (Russian) **81c:41051**
Watanabe, Hisako Theorems of Korovkin type in an ordered vector space with a locally convex topology. **81b:41028**
Wood, B. See **Radatz, P.** **81a:41036**

secondary classifications:

- Bauer, Heinz** Korovkin approximation in function spaces. **(81a:41052)**
Berens, H. (with DeVore, Ronald A.) Quantitative Korovkin theorems for positive linear operators on L_p -spaces. **(81g:41030)**
DeVore, Ronald A. See **Berens, H.** **(81g:41030)**
Isrolov, S. Approximation of ordered semigroups by positive real functionals. (Russian. Tajiki summary) **(81j:06020)**
Jimenez Pozo, Miguel A. Déformation de la convexité et théorèmes du type Korovkin. (English summary) **(81a:41054)**
Mastrolia, Giuseppe On a linear positive operator. (Italian. English summary) **(81f:41028)**
Schurer, F. (with Steutel, F. W.) On the degree of approximation of functions in C^1_r with operators of the Jackson type. **(81c:42009)**
Steutel, F. W. See **Schurer, F.** **(81c:42009)**
Takahasi, Shin-ichi Korovkin's theorems for C^* -algebras. **(81f:46073)**
Videnskii, V. S. Approximation of functions by rational fractions with fixed real poles. (Russian. English summary) **(81g:41025)**

41A40 Saturation

- Agashev, M. A.** Convergence and local saturation of a sequence of linear positive operators. (Russian) **81b:41055**
Grundmann, Axel Inverse theorems for Kantorovič polynomials. **81c:41035**
Kaul, B. N. (with Singh, Vijendra) Best approximation by a saturation class of polynomial operators. **81f:41028**
Singh, Vijendra See **Kaul, B. N.** **81f:41028**
Tomčić, Miloš Saturation classes for a logarithmic mean method of Fourier series summation. (Russian. Serbo-Croatian summary) **81a:41037**
 A generalized logarithmic summation method and saturation classes in the spaces C and L_p . (Russian. Serbo-Croatian summary) **81b:41056**
Uglava, D. K. On the saturation problem in the space $L_p(\mathbb{R}^n)$, $1 < p < 2$. (Russian) **81b:41057**

secondary classifications:

- Hodak, L. B.** Structural characteristics of certain classes of functions in the metric of L_p for $0 < p < 1$. (Russian) **(81f:41005)**
Il'in, V. P. Approximation of the functions of class $B^1_{p,p}(G)$ by nonisotropic means. (Russian) **(81c:41049)**
Ostrogorski, Tatjana Global and local saturation theorems in some spaces of temperate functions. **(81c:42022)**
Sendov, Bl. Best Hausdorff approximation with spline functions. **(81c:41026)**
Sumouchi, G. Saturation of certain trigonometric interpolation polynomials. **(81g:42007)**

41A44 Best constants

- Bromstein, E. M.** ϵ -entropy of affine-equivalent convex bodies and Minkowski's compactum. (Russian) **81c:41052**
Ganzburg, M. I. Čebyšev constants of closed sets of \mathbb{R}^n . (Russian) **81b:41058**
Hölzle, G. E. On the degree of approximation of continuous functions by a class of sequences of linear positive operators. **81b:41029**
Konjagin, S. V. V. A. Markov's inequality for polynomials in the metric of L . (Russian) **81c:41036**

secondary classifications:

- Beston, R. K.** Addendum: "The asymptotic cost of Lagrange interpolatory side conditions" [J. Approx. Theory **20** (1977), no. 3, 288–295; MR **56** #923]. **(81m:41003)**
Ivanov, V. I. Some extremal properties of polynomials and inverse inequalities of

approximation theory. (Russian) **(81c:41023)**

- Koruličuk, M. P.** Sharp inequalities for the best approximation by splines. (Russian) **(81b:41013)**
Natanson, G. I. See **Žuk, V. V.**, **(81c:42004)**
Petrusev, P. P. (with Tašev, Spas P.) Converse theorems in Hausdorff's metric. **(81c:41035)**
Pinkus, Allan Some extremal properties of perfect splines and the pointwise Landau problem on the finite interval. **(81c:41019)**
Sapilidi, T. M. Sharp upper bounds of deviations of conjugate Riesz sums over classes of differentiable functions. (Russian) **(81c:41047)**
Schmidt, Darrell On an unboundedness conjecture for strong unicity constants. **(81a:41045)**
Ševaldin, V. T. Extremal interpolation with smallest value of the norm of a linear differential operator. (Russian) **(81k:41002)**
Subbotin, Ju. N. Extremal problems of the theory of approximation of functions with incomplete information. (Russian) **(81g:41031)**
Tašev, Spas P. See **Petrusev, P. P.** **(81c:41035)**
Veselinov, V. M. A general method for determining the best constants in linear methods of Hausdorff approximation. (Russian) **(81c:41051)**
Žuk, V. V. (with Natanson, G. I.) Constants in direct theorems of approximation theory. (Russian. English summary) **(81c:42004)**

41A45 Approximation by arbitrary linear expressions

- Koruličuk, M. P.** The best approximation on a segment of classes of functions with a bounded r th derivative via finite-dimensional subspaces. (Russian) **81b:41059**
Makovoz, Ju. I. Diameters of Sobolev classes and splines deviating least from zero. (Russian) **81b:41060**
Osipenko, K. Ju. Best methods for approximation and degree of informativeness of systems. (Russian) **81m:41025**
Pinkus, Allan On n -widths of periodic functions. **81b:41030**
Sommer, Manfred Characterization of continuous selections for the metric projection for generalized splines. **81a:41038**

secondary classifications:

- Albinus, Günter** On the existence of rapidly approximating sequences of finite-dimensional subspaces in spaces of measurable functions. **(81a:41050)**
Dudley, R. M. Balls in \mathbb{R}^k do not cut all subsets of $k+2$ points. **(81g:52010)**
Klessewetter, H. Zur Konstruktion von besten linearen Approximationen in normierten Räumen. **(81b:41088)**
Krüger, Heinrich A remark on the lower semicontinuity of the set-valued metric projection. **(81a:41042)**
Lewanowicz, Stanisław Properties of some polynomial projections. **(81f:41007)**
Light, William A. Projections on spaces of continuous functions. **(81a:41055)**
Ligon, A. A. Optimal methods for the approximate calculation of functionals on classes $W^r L_\infty$. (Russian summary) **(81b:41014)**
Luk-Ogrodnik, Barbara Application of the Čebyšev transform method to the approximation of functions of two variables. (Polish. Russian and English summaries) **(81d:42014)**

41A46 Approximation by arbitrary nonlinear expressions; widths and entropy

- de Boor, Carl** (with DeVore, Ronald A.; Höllig, Klaus) Mixed norm n -widths. **81k:41013**
DeVore, Ronald A. See **de Boor, Carl**; et al., **81k:41013**
Dunham, Charles B. Weighted Chebyshev approximation on a compact Hausdorff space. **81b:41061**
Höllig, Klaus Diameters of classes of smooth functions. **81m:41026**
 See also **de Boor, Carl**; et al., **81k:41013**
Kašin, B. S. On estimates of diameters. **81m:41027**
Majorov, V. E. Extremal chains of subspaces for Kolmogorov and linear diameters. (Russian) **81d:41032**
Melkman, Avraham A. n -widths of octahedra. **81j:41041**
Puhov, S. V. Approximation of weighted classes of S. L. Sobolev type. (Russian) **81c:41053**
 Kolmogorov widths of a regular simplex. (Russian. English summary) **81k:41014**
Smazewski, Ryszard Some remarks on nonlinear Chebyshev approximation to functions defined on normal spaces. **81a:41039**

secondary classifications:

- Nasyrova, H.** Estimates of n -diameters of classes of functions with a weight in the space L_2 . (Russian) **(81b:46034)**
Rjabko, B. Ja. A universal encoding of compacta. (Russian) **(81m:94010)**
Smazewski, Ryszard Chebyshev optimal starting approximation by families with the weak betweenness property. (Polish summary) **(81b:41069)**

41A50 Best approximation, including Čebyšev systems

- Ahazoglou, Theagenis** Finite-dimensional Banach spaces with a.e. differentiable metric projection. **81b:41062**
Andreev, Andrei St. Stability of best approximations relative to the Hausdorff distance. (Russian) **81c:41054**
 Stability of best approximations in relation to Hausdorff distance. (Russian) **81f:41029**
Aparicio Bernardo, Emiliano Three theorems on approximation in the space L_p by means of polynomials with integer coefficients. (Spanish) **81b:41063**
Balaganskii, V. S. Weak continuity of the metric projection in Banach spaces. (Russian) **81c:41020**

- Bankov, N. G. Hausdorff polynomials and digital filters design. **81g:41032**
- Bartelt, M. W. (with Henry, Myron S.) Continuity of the strong unicity constant on $C(X)$ for changing X . **81e:41037**
- Butzer, P. L. (with Stens, R. L.; Wehrens, M.) Higher order moduli of continuity based on the Jacobi translation operator and best approximation. **81a:41040**
- Černík, B. P. (with Jarahmedov, B. Ja.) Some characteristics of Čebyšev systems. (Russian) (See **81c:32001**)
- Characterization set of the best approximation problem. (Russian) **81b:41064**
- Černikov, M. S. Best approximation of a function defined on a finite set. (Russian) **81c:41055**
- Chui, Charles K. (with Smith, Wm. B.; Ward, J. D.) Approximation by minimum norm interpolants in the disc algebra. **81e:41038**
- Deutsch, Frank A general existence theorem for best approximations. **81c:41056**
- Dunham, Charles B. The first algorithm of Remez. **81m:41028**
- Fuchs, W. H. J. On the degree of Chebyshev approximation on sets with several components. (Armenian and Russian summaries) **81a:41041**
- Ganeburg, M. I. A sharp estimate of the derivative of an algebraic polynomial at a point. (Russian) **81c:41057**
- Garkavi, A. L. A cyclic descent method in a problem of best approximation. (Russian) **81i:41021**
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- Henry, Myron S. (with Huff, Lawrence R.) On the behavior of the strong unicity constant for changing dimension. **81c:41058**
- See also Bartelt, M. W., **81e:41037**
- Huff, Lawrence R. See Henry, Myron S., **81c:41058**
- Jarahmedov, B. Ja. See Černík, B. P., (See **81c:32001**)
- Kasimov, B. Correlation of rates of polynomial approximation in uniform and Hausdorff metrics. (Russian) **81c:41059**
- Klusch, E. Characterization of generalized convex functions by their best approximation in sign-monotone norms. **81d:41033**
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- Klokova, J. Some operations with Čebyšev series. (Russian) **81b:41065**
- Kononova, N. F. The best approximation of functions in a space with a generalized norm. (Russian) **81f:41030**
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- Koščev, V. A. An example of a disconnected sun in a Banach space. (Russian) **81c:41060**
- Kovtaneč, V. V. Some inequalities for the derivative of generalized Čebyšev polynomials. (Ukrainian, English and Russian summaries) **81j:41042**
- Kroó, A. On the continuity of best approximations in the space of integrable functions. **81b:41067**
- Krüger, Heinrich A remark on the lower semicontinuity of the set-valued metric projection. **81a:41042**
- Lebedev, N. A. A statement of a problem of Čebyšev approximation. (Russian, English summary) **81i:41022**
- Meinardus, Günter Segmentielle Approximation und H -Mengen. **81g:41033**
- Mitchell, Charles A. (with Rivlin, T. J.) Optimal recovery of best approximations. **81h:41031**
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- Morozov, E. N. Čebyšev subspaces of vector-valued functions. (Russian) **81c:41061**
- Muthukumar, S. A note on best and best simultaneous approximations. **81j:41043**
- Narang, Tulsi Das On Chebyshev sets in metric linear spaces. **81c:41062**
- Ölman, E. V. Continuity of the metric projection in the space $C(Q)$. (Russian) **81d:41034**
- Continuity of a metric projection on Čebyšev spaces of finite codimensions in a space of continuous functions. (Russian) **81b:41029**
- Pöcherstorfer, Franz Trigonometric polynomial approximation in the L^1 -norm. **81d:41035**
- Pinkus, Allan (with Ziegler, Zvi) Interlacing properties of the zeros of the error functions in best L^p -approximations. **81c:41063**
- Reimer, Manfred Best approximations to polynomials in the mean and norms of coefficient-functionals. **81b:41068**
- Ricci, Paolo Emilio Čebyšev polynomials in several variables. (Italian, English summary) **81c:41039**
- Rivlin, T. J. See Mitchell, Charles A., **81h:41031**
- Rjavisinskaja, E. V. Mean approximation of functions by Fourier-Laguerre sums. (Russian) **81h:41032**
- Sastry, Sundaram M. A. See Srinivasan, Sundarajan, **81b:41070**
- Schaback, Robert Bemerkungen zur Fehlerabschätzung bei linearer Tschebyscheff-Approximation. (English summary) **81h:41033**
- Sendov, Bl. Some problems in Hausdorff approximation. (Russian) **81a:41043**
- Shimauchi, Hiroyuki Simultaneous optimization of absolute and relative errors in Chebyshev approximation on an interval. **81b:41023**
- Skopina, M. A. Approximation of a function by Fourier-Jacobi sums. (Russian, English summary) **81e:41040**
- Smazewski, Ryszard On characterization of Chebyshev optimal starting and transformed approximations by families having a degree. (Polish and Russian summaries) **81b:41034**
- Chebyshev optimal starting approximation by families with the weak betweenness property. (Polish summary) **81b:41069**
- Smith, Wm. B. See Chui, Charles K.; et al., **81e:41038**
- Srinivasan, Sundarajan (with Sastry, Sundaram M. A.) Chebyshev lines and Chebyshev hyperspaces of classical Banach spaces. **81b:41070**
- Stens, R. L. Gewichtete beste Approximation stetiger Funktionen durch algebraische Polynome. (English summary) **81d:41036**
- See also Butzer, P. L.; et al., **81a:41040**
- Subba Rao, V. See Zacharias, Cecily, **81j:41044**
- Taberski, Roman Indirect approximation theorems in L^p -metrics ($1 < p < \infty$). **81f:41031**
- Ubhaya, Vasant A. An $O(n)$ algorithm for discrete n -point convex approximation with applications to continuous case. **81b:41071**
- Valašek, Ja. Imbedding theorems and inequalities of various metrics for best approximations with respect to the Haar system. (Russian) **81k:41016**
- Veselinov, V. M. Asymptotic distribution of points of maximal deviation in the polynomials of best Hausdorff approximation. **81c:41064**
- Ward, J. D. See Chui, Charles K.; et al., **81e:41038**
- Warth, Wolfgang On the uniqueness of best uniform approximations in the presence of constraints. **81a:41044**
- Wehrens, M. See Butzer, P. L.; et al., **81a:41040**
- Wetterling, Wolfgang H -Mengen und Minimalbedingungen bei Approximationsproblemen. (English summary) **81f:41032**
- Young, Andrew (with Kiountouzis, E. A.) Best approximation in an asymmetrically weighted L_1 measure. **81b:41072**
- Zacharias, Cecily (with Subba Rao, V.) A characterisation theorem for simultaneous approximation by sums of Chebyshev norms. **81j:41044**
- Žensykhoev, A. A. Monosplines deviating least from zero and best quadrature formulas. (Russian) **81c:41041**
- Ziegler, Zvi See Pinkus, Allan, **81c:41063**
- Žuk, V. V. Some sharp inequalities between best approximations of periodic functions and moduli of continuity of higher order. (Russian, English summary) **81e:41042**
- secondary classifications:
- Amir, Dan (with Deutsch, Frank) Approximation by certain subspaces in the Banach space of continuous vector-valued functions. **(81c:41077)**
- Arestov, V. V. Approximation of operators of convolution type by linear bounded operators. (Russian) **(81g:41029)**
- Bleimann, G. (with Stark, Eberhard L.) An elementary construction of periodic singular integrals achieving the order of best approximation. **(81a:42063)**
- Borwein, Peter B. Approximations by rational functions with positive coefficients. **(81c:41029)**
- Brass, Helmut Über die Koeffizienten der Polynome bester Approximation. **(81b:41062)**
- Bridges, Douglas S. On the foundations of best-approximation theory. **(81i:41027)**
- Censor, Yair Necessary conditions for Pareto optimality in simultaneous Chebyshev best approximation. **(81f:90069)**
- Cheney, E. W. Best approximation in tensor product spaces. **(81i:65012)**
- Collatz, Lothar Anwendungen der Approximationstheorie auf Randwertaufgaben, insbesondere bei eingespannten Platten und freien Rändern. (English summary) **(81c:65051)**
- Deutsch, Frank Existence of best approximations. **(81k:41026)**
- See also Amir, Dan, **(81c:41077)**
- Dunham, Charles B. Weighted Chebyshev approximation on a compact Hausdorff space. **(81b:41061)**
- Behavior of the one-sided alternating Chebyshev operator. **(81h:41020)**
- Gauthier, C. Sur l'approximation rationnelle de e^{-x} sur $[0, \infty)$. **(81d:41018)**
- Glashoff, Klaus (with Schultz, Reinhart) Über die genaue Berechnung von besten L^1 -Approximierenden. **(81f:65012)**
- Govindaraju, P. (with Pai, D. V.) On properties of sets related to f -projections. **(81d:41039)**
- Gusak, I. Ja. (with Šaškin, Ju. A.) Finitely positively independent sets. (Russian) **(81m:41030)**
- Handel, David Algebraic-topological problems in approximation theory. **(81e:55005)**
- Keener, L. L. (with Ling, W. H.) Approximation under an arc length constraint. **(81c:41032)**
- Kroó, A. On the uniform modulus of continuity of the operator of best approximation in the space of periodic functions. **(81a:42006)**
- Ling, W. H. See Keener, L. L., **(81c:41032)**
- Osipenko, K. Ju. Best methods for approximation and degree of informativeness of systems. (Russian) **(81m:41025)**
- Pai, D. V. See Govindaraju, P., **(81d:41039)**
- Pinkus, Allan On n -widths of periodic functions. **(81h:41030)**
- Raichin, R. A. Asymptotic properties of uniform approximations of functions with algebraic singularities by partial sums of a Fourier-Čebyšev series. (Russian) **(81h:42023)**
- Šaškin, Ju. A. See Gusak, I. Ja., **(81m:41030)**
- Schultz, Reinhart See Glashoff, Klaus, **(81f:65012)**
- Smazewski, Ryszard Some remarks on nonlinear Chebyshev approximation to functions defined on normal spaces. **(81a:41039)**
- Nonlinear Chebyshev approximations having restricted ranges. **(81a:41029)**
- Sommer, Manfred Characterization of continuous selections for the metric projection for generalized splines. **(81a:41038)**
- Nonexistence of continuous selections of the metric projection for a class of weak Chebyshev spaces. **(81g:41046)**
- Stark, Eberhard L. See Bleimann, G., **(81a:42003)**
- Subrahmanya, M. R. On simultaneous best approximations in $C[a, b]$. **(81k:41011)**
- Taikov, L. V. Best approximations in $L_2(0, 2\pi)$ of classes of periodic functions with derivatives of bounded variation. (Russian) **(81m:42002)**
- Temljakov, V. N. On the question of the asymptotic behavior of the best approximations of continuous functions. (Russian) **(81c:42006)**
- Tomčić, Miloš Approximation of a wedge of 2π -periodic functions by singular integrals. (Russian) **(81i:42017)**
- Best approximation of a function and approximation by certain singular integrals. (Russian, English and Serbo-Croatian summaries) **(81j:41036)**
- Ubhaya, Vasant A. Nonlinear programming, approximation, and optimization on infinitely differentiable functions. **(81a:90145)**
- Vasil'ev, A. I. Delta-compactness of the algebraic sum of sets. (Russian) **(81e:41052)**
- Čebyšev sets and strict convexity of linear metric spaces. (Russian) **(81j:46007)**
- Wang, Ren Hong The degree of approximation by Hermite-Fejér interpolating polynomials. (Chinese) **(81j:41008)**
- Younis, Rahman Best approximation in certain Douglas algebras. **(81j:46031)**

Zarnadze, D. N. Reflexivity and best approximations in Fréchet spaces. (Russian) (81b:46003)

Zielke, Roland ★Discontinuous Čebyšev systems. (81a:41001)

41A52 Uniqueness of best approximation

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Dolganov, R. L. See Aizlov, S. A., 81b:41073

Gusak, I. Ja. (with Šalkin, Ju. A.) Finitely positively independent sets. (Russian) 81m:41030

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Schmidt, Darrell On an unboundedness conjecture for strong unicity constants. 81a:41045

Smirnov, G. S. A remark on the uniqueness of the polynomial of best approximation in the L metric. (Ukrainian. English and Russian summaries) 81b:41074

secondary classifications:

Olman, E. V. Continuity of a metric projection on Čebyšev spaces of finite codimensions in a space of continuous functions. (Russian) (81m:41029)

Schaback, Robert Bemerkungen zur Fehlerabschätzung bei linearer Tschebyscheff-Approximation. (English summary) (81b:41033)

Sommer, Manfred Nonexistence of continuous selections of the metric projection for a class of weak Chebyshev spaces. (81g:41046)

41A55 Approximate quadratures

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Barrow, David L. (with Smith, Philip W.) Asymptotic properties of optimal quadrature formulas. 81b:41034

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Bojanov, Borislav D. On the existence of optimal quadrature formulae for smooth functions. 81c:41067

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Uniqueness of optimal nodes of quadrature formulas. (Russian) 81c:41043

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Doronin, V. G. (with Ligan, A. A.) The exact solution to some extremal problems on classes of functions determined by an integral modulus of continuity. (Russian) 81c:41044

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See also Doronin, V. G., 81c:41044

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Michelli, Charles A. Some positive Cotes numbers for the Chebyshev weight function. 81k:41021

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Nikol'skii, S. M. ★Квадратурные формулы. (Russian) [Quadrature formulae]

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Oscinici, Alessandro (with Rosati, Francesco) The convergence of hyper-Gaussian functionals. (Italian. French summary) 81a:41046

Pereverzev, S. V. (with Šabozov, M.) On the question of quadrature and cubature formulas that are connected with Hermite splines. (Russian) 81b:41078

Best quadrature formula for a class of functions with an r th derivative having bounded variation. (Russian) 81b:41079

Pevnyi, A. B. See Malozemov, V. N., 81k:41020

Polovinkina, V. I. Lattice cubature formulas with positive coefficients. (Russian) 81m:41031

Priger, Milan Universally optimal approximation of functionals. (Czech and Russian summaries) 81c:41068

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Rosati, Francesco See Oscinici, Alessandro, 81a:41046

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Schmid, Hans Joachim Interpolatorische Kubaturformeln und reelle Ideale. 81k:41023

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Asymptotically optimal quadrature and cubature formulas in a finite domain. (Russian) 81b:41081

Terehin, A. P. Estimation of a multiple integral by integrals of lower multiplicity. (Russian) 81b:41035

Tošić, Dobroslav D. A modification of the Birkhoff-Young quadrature formula for analytical functions. 81j:41047

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Zadravka, V. K. Quadrature formulae with optimal accuracy for the calculation of the Fourier transform. 81d:41038

Žamalov, Z. Ž. (with Šadimetov, H. M.) Calculation of the coefficients of optimal quadrature formulas. (Russian) 81k:41025

(with Šadimetov, H. M.) Optimal quadrature formulas. (Russian) 81j:41049

secondary classifications:

Akopjan, G. G. Error estimates for cubature formulas for differentiable functions on domains with degenerate angles. (Russian) (81c:65014)

Arioka, Shigekatsu See Ogawa, Shiro; et al., (81k:65028)

Elliott, David (with Paget, D. F.) Gauss type quadrature rules for Cauchy principal value integrals. (81b:65023)

Giršovič, J. See Levin, M. I., (81j:65051)

Gori, Laura Nicolò-Amati General formulation of a problem concerning quadrature formulas. (Italian. English summary) (81f:65021)

Helndl, Gerhard Über einen Zusammenhang zwischen optimalen Formeln im Sinne von Sard und besten Formeln im Sinne des minimalen Maximalfehlers. (81k:65024)

Kida, Sôsaburô See Ogawa, Shiro; et al., (81k:65028)

Klov, G. H. Some extremal problems for k -splines. (Russian) (81b:41009)

Kuz'mina, A. L. Interval quadrature formulas with multiple nodal intervals. (Russian) (81k:65026)

Lange, Gerald Optimale definite Quadraturformeln. (81k:65027)

Levin, M. I. (with Giršovič, J.) ★Optimal quadrature formulas. (81j:65051)

Locher, Franz Dividierte Differenzen und Monotonie von Quadraturformeln. (English summary) (81b:65016)

Mil'kovec', U. A. A property of the areas of tangential trapezoids and approximate calculation of integrals. (Ukrainian. Russian summary) (81a:65036)

Möller, Hans Michael Lower bounds for the number of nodes in cubature formulae. (81j:65053)

Linear abhängige Punktfunktionen bei zweidimensionalen Interpolations- und Approximationsproblemen. (81m:41038)

Ogawa, Shiro (with Arioka, Shigekatsu; Kida, Sôsaburô) On orthogonal polynomials in two variables and Gaussian cubature formulas. (81k:65028)

Paget, D. F. See Elliott, David, (81b:65023)

Phillips, G. M. Seventh degree integration rules for the sphere. (81k:65029)

Rusak, V. N. (with Šeiko, M. A.) Approximation of singular integrals by singular integrals with polynomial density. (Russian. English summary) (81a:30020)

Scherer, R. (with Zeller, Karl) Lobatto-Quadratur und Fixpunkte. (81g:65027)

Šeiko, M. A. See Rusak, V. N., (81a:30020)

Sidi, Avram Numerical quadrature and nonlinear sequence transformations; unified rules for efficient computation of integrals with algebraic and logarithmic endpoint singularities. (81b:65017)

Strauss, Hans Optimal quadrature formulas. (81b:41024)

Über Fehlerabschätzungen bei besten Quadraturformeln. (81g:65032)

Zeller, Karl See Scherer, R., (81g:65027)

Žensykhuev, A. A. Monosplines deviating least from zero and best quadrature formulas. (Russian) (81c:41041)

41A58 Series expansions (e.g. Taylor, Lidstone series, but not Fourier series)

Bavrin, E. I. Sharp estimates of the Taylor coefficients for functions of class $\tilde{C}(1)$. (Russian) (See 81c:32001)

Sharp estimates for the Taylor coefficients of functions of class \tilde{S} . (Russian) (See 81c:32001)

Brass, Helmut Über die Koeffizienten der Polynome bester Approximation. 81b:41082

Freedon, Willi On the approximation of external gravitational potential with closed systems of (trial) functions. 81c:41046

Iseki, Shô (with Iseki, Yukiko) Asymptotic expansion for the remainder of a factorial series. 81k:41024

Iseki, Yukiko See Iseki, Shô, 81k:41024

Meek, D. S. A mean value theorem for linear functionals. 81f:41033

Tandori, Károly New results concerning the convergence of function series. (Hungarian) 81c:41069

secondary classifications:

Agrawal, B. M. (with Kumar, Virendra) A q -expansion formula. (81b:33021)

Bolignano, L. P., Jr. Interpolation of the natural responses of physical systems with rational transfer functions. (81m:94004)

Ganev, H. G. (with Georgiev, Kr.) Exact smooth interpolation. Interpolation by expansion into a Maclaurin series. (Bulgarian. Russian and English summaries) (81g:65013)

Georgiev, Kr. See Ganev, H. G., (81g:65013)

Kumar, Virendra See Agrawal, B. M., (81b:33021)

Pätzelt, B. (with Stingl, M.; Weiguny, A.) Scattering solutions to nonlocal Hamiltonians in terms of generalized Bessel-Neumann series. (81c:81048)

Stingl, M. See Pätzelt, B.; et al., (81c:81048)

Weiguny, A. See Pätzelt, B.; et al., (81c:81048)

41A60 Asymptotic approximations, asymptotic expansions (steepest descent, etc.) [See also 30E15.]

- Armstrong, Judith A. (with Bleistein, Norman) Asymptotic expansions of integrals with oscillatory kernels and logarithmic singularities. **81a:41047**
- Balian, R. (with Parisi, G.; Voros, A.) Quartic oscillator. **81b:41063**
- Baryshnikov, A. S. Optimal approximation by asymptotic series. (Russian) **81g:41037**
- Bleistein, Norman. See Armstrong, Judith A., **81a:41047**
- Campbell, L. Lorne Asymptotic and monotonicity properties of some confluent hypergeometric functions. **81e:41047**
- Dammert, Örjan (with Fröman, Per Olof) N. Fröman's phase-integrals versus JWKB: documentation of the advantages of the former in higher-order approximations. **81k:41025**
- Fröman, Per Olof. See Dammert, Örjan, **81k:41025**
- Gregory, R. D. A note on multiple asymptotic series. **81a:41048**
- Hellekalek, Peter Über das Wachstum von L_p -Normen. **81b:41036**
- Jordan, W. B. A conjectured property of Legendre functions. **81m:41032**
- Kritzel, E. (with Menzer, H.) Asymptotische Entwicklung von Integralen mit zwei Parametern. **81m:41033**
- Mamedov, G. M. Asymptotic values of an approximation of multiply differentiable functions by conjugate m -singular integrals. (Russian) (See **80d:00021**)
- Masse, Jacques On matching principles. **81g:41038**
- Menzer, H. See Kritzel, E., **81m:41033**
- Meyer, Richard E. Exponential asymptotics. **81c:41070**
- Olver, F. W. J. Asymptotic approximations and error bounds. **81c:41071**
- Parisi, G. See Balian, R.; et al., **81b:41063**
- Riekstins, V. Uniform asymptotic expansion of a class of integrals with oscillating kernels. (Russian) **81c:41072**
- Riekstins, E. Application of the convergence factor to asymptotic expansion of integrals. (Russian) **81c:41073**
- Sadykov, V. E. Asymptotic behavior of a class of double integrals depending on the parameter. (Russian) **81c:41048**
- Asymptotic behavior of a class of double integrals depending on two parameters. (Russian) **81c:41074**
- Skinner, L. A. Note on the asymptotic behavior of multidimensional Laplace integrals. **81i:41026**
- Soni, Kusum On uniform asymptotic expansions of finite Laplace and Fourier integrals. **81g:41039**
- Stokor, E. L. Asymptotic behavior of integrals with Jacobi polynomials and Clebsch-Gordan coefficients. (Russian) **81m:41034**
- Ursell, F. Integrals with a large parameter: a double complex integral with four nearly coincident saddle-points. **81j:41050**
- Vasil'ev, V. A. Asymptotic behavior of exponential integrals in the complex domain. (Russian) **81m:41035**
- Voros, A. See Balian, R.; et al., **81b:41063**
- Wong, R. Explicit error terms for asymptotic expansions of Mellin convolutions. **81a:41049**

On a uniform asymptotic expansion of a Fourier-type integral. **81j:41051**

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- Babič, V. M. Geometric-optical methods in the theory of elastic waves. (Russian) (**81g:73032**)
- Barlet, Daniel Développement asymptotique des fonctions obtenues par intégration sur les fibres. (English summary) (**81m:32027**)
- Barton, G. See Plankett, J. S., (**81m:82036**)
- Braksma, Boele Introduction to the asymptotic theory of linear homogeneous difference equations. (**81g:39001**)
- Dražić, V. K. Some special functions and their role in the solution of inhomogeneous differential equations with a turning point. (Russian) (**81b:34047**)
- Eckhaus, Wiktor ★Asymptotic analysis of singular perturbations. (**81a:34048**)
- Edneral, V. F. (with Troian, S. M.; Tjurin, N. E.) Expansion of scattering amplitude at large momentum transfer. (Russian. English summary) (**81b:81123**)
- Eyralov, M. A. ★Асимптотические оценки и целые функции. (Russian) [Asymptotic estimates and entire functions] (**81b:30048**)
- Friedman, Armer (with Turkington, Bruce) Asymptotic estimates for an axisymmetric rotating fluid. (**81h:76058**)
- Fu, James C. (with Wong, R.) An asymptotic expansion of a beta-type integral and its application to probabilities of large deviations. (**81f:60041**)
- Gatteschi, Luigi A new asymptotic representation of ultraspherical polynomials. (Italian. English summary) (**81m:33007**)
- Geronimo, Jeffrey S. Szegő's theorem for Hankel determinants. (**81j:42028**)
- Goodenough, S. J. (with Mills, T. M.) The asymptotic behaviour of certain interpolation polynomials. (**81k:41015**)
- Iseki, Shō (with Iseki, Yukiko) Asymptotic expansion for the remainder of a factorial series. (**81k:41024**)
- Iseki, Yukiko. See Iseki, Shō, (**81k:41024**)
- Laganani, Robert (with Rice, Stephen) Expressions for the behavior of a Fourier transform near its singularities. (**81k:42012**)
- Mills, T. M. See Goodenough, S. J., (**81k:41015**)
- Morgan, M. J. (with Ninio, F.) A generalized Laplace formula. (**81i:82014**)
- Nikiforov, A. F. (with Uvarov, V. B.) ★Специальные функции математической физики. (Russian) [Special functions of mathematical physics] (**81b:33001**)
- Ninio, F. See Morgan, M. J., (**81i:82014**)
- Pak, I. N. Asymptotic formulas for derivatives of sums of special trigonometric series. (Russian) (**81i:42015**)
- Plankett, J. S. (with Barton, G.) Analysis of the adsorption potential in the hydrodynamic model of metals. (**81m:82036**)
- Reinhardt, Hans-Jürgen On asymptotic expansions in nonlinear operator equations with applications to singular perturbation problems. (**81c:65048**)
- Rice, Stephen. See Laganani, Robert, (**81k:42012**)

- Saff, E. B. (with Varga, Richard S.) The sharpness of Lorentz's theorem on incomplete polynomials. (**81b:41046**)
- Sobolev, S. L. On the asymptotic behavior of Euler polynomials. (Russian) (**81a:33022**)
- Soni, Kusum Exact error terms in the asymptotic expansion of a class of integral transforms. I. Oscillatory kernels. (**81h:44003**)
- Tjurin, N. E. See Edneral, V. F.; et al., (**81h:81123**)
- Troian, S. M. See Edneral, V. F.; et al., (**81h:81123**)
- Turkington, Bruce. See Friedman, Armer, (**81h:76058**)
- Uvarov, V. B. See Nikiforov, A. F., (**81b:33001**)
- Varga, Richard S. See Saff, E. B., (**81b:41046**)
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- Cavaretta, Alfred S., Jr. (with Micchelli, Charles A.; Sharma, Ambikeshwar) Multivariate interpolation and the Radon transform. II. Some further examples. **81m:41037**
- (with Micchelli, Charles A.; Sharma, Ambikeshwar) Multivariate interpolation and the Radon transform. **81m:41036**
- v. Goltschek, Manfred Approximation of functions of two variables by the sum of two functions of one variable. **81j:41053**
- Ilin, V. P. Approximation of the functions of class $B_{p,q}^r(G)$ by nonisotropic means. (Russian) **81c:41049**
- Konovalov, V. M. Approximation by entire functions in the metric of $L_p(\mathbb{R}^n)$ and the approximating characteristics of functions of several variables. (Russian) **81b:41084**
- On the best approximations of functions of several variables by multipoint Taylor formulas. (Russian) **81g:41040**
- Lancaster, Peter Composite methods for generating surfaces. **81c:41075**
- Meinguet, Jean A convolution approach to multivariate representation formulas. **81c:41076**
- Micchelli, Charles A. See Cavaretta, Alfred S., Jr.; et al., **81m:41036** and Cavaretta, Alfred S., Jr.; et al., **81m:41037**
- Möller, Hans Michael Lineare abhängige Punktfunktionale bei zweidimensionalen Interpolations- und Approximationsproblemen. **81m:41038**
- Perceverez, S. V. Exact values of the approximation by Hermite splines on a class of differentiable functions of two variables. (Russian) **81b:41085**
- Rice, John R. See de Boor, Carl, **81j:41052**
- Sharma, Ambikeshwar. See Cavaretta, Alfred S., Jr.; et al., **81m:41036** and Cavaretta, Alfred S., Jr.; et al., **81m:41037**

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- Akopian, G. G. Sequences of cubature formulas with a cubic lattice for domains with degenerate angles. (Russian) (**81c:41065**)
- Arioka, Shigekatsu. See Ogawa, Shiro; et al., (**81c:41004**)
- Baszenski, G. (with Delves, F.-J.; Posdorf, H.) Boolean methods in bivariate reduced Hermite interpolation. (**81g:41002**)
- Bevor, O. V. Estimations of the errors of cubature formulas by the smoothness of functions. (Russian) (**81c:41066**)
- Carneiro, José Paulo Q. Non-Archimedean weighted approximation. (**81d:46070**)
- Čebanov, V. I. Approximation properties of some classes of vector fields. (Russian. English summary) (**81i:31009**)
- Dahmen, Wolfgang (with DeVore, Ronald A.; Scherer, Karl) Multidimensional spline approximation. (**81j:41015**)
- Delves, F.-J. See Baszenski, G.; et al., (**81g:41002**)
- DeVore, Ronald A. See Dahmen, Wolfgang; et al., (**81j:41015**)
- Fedko, V. V. See Rvachov, V. L., (**81c:41006**)
- Helndl, Gerhard Interpolation and approximation by piecewise quadratic C^1 -functions of two variables. (**81j:41005**)
- Hvostov, A. P. The set of polynomials of best approximation for certain continuous functions of two variables. (Russian) (**81h:41001**)
- Jakimovski, A. (with Russell, D. C.) On an interpolation problem for functions of several variables and spline functions. (**81i:41006**)
- Kida, Sōsaburō. See Ogawa, Shiro; et al., (**81c:41004**)
- Kraskovskiĭ, S. N. (with Manevich, V. A.; Petri, N. V.) The Hausdorff representation of positive polynomials in convex approximations. (Russian) (**81c:41038**)
- Manevich, V. A. See Kraskovskiĭ, S. N.; et al., (**81c:41038**)
- Mastroianni, Giuseppe On the remainders in some linear approximation formulas. (Italian. English summary) (**81h:41027**)
- Melchardus, Günter Segmentielle Approximation und H -Mengen. (**81g:41033**)
- Möller, Hans Michael Lower bounds for the number of nodes in cubature formulas. (**81j:65053**)
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- Nagalkor, V. V. Approximation of functions of several variables, with account taken of the growth of coefficients of approximating aggregates. (Russian) (**81c:41008**)
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- Perceverez, S. V. Exact values of approximation by Hermitian splines on a class of functions of two variables. (Russian) (**81c:41023**)
- Petri, N. V. See Kraskovskiĭ, S. N.; et al., (**81c:41038**)
- Poberečii, S. V. Some estimates of an approximation of functions of class $W_p^r(\Omega)$ in a domain with a conic point and an edge. (Russian. English summary) (**81i:41018**)

- Pondorf, H. See Baszenski, G.; et al., (81g:41002)
- Pobov, S. V. Kolmogorov widths of a regular simplex. (Russian. English summary) (81k:41014)
- Reimer, Manfred Best approximations to polynomials in the mean and norms of coefficient-functionals. (81b:41068)
- Ricci, Paolo Emilio Čebyšev polynomials in several variables. (Italian. English summary) (81c:41039)
- Russell, D. C. See Jakimovski, A., (81i:41006)
- Rvačov, V. L. (with Fed'ko, V. V.) Solution of boundary value problems by means of generalized piecewise-Hermite interpolation. (Russian) (81i:41006)
- Scherer, Karl See Dahmen, Wolfgang; et al., (81j:41015)
- Scherer, R. (with Zeller, Karl) Two-dimensional grids for polynomials. (81m:65017)
- Schumaker, Larry L. On the dimension of spaces of piecewise polynomials in two variables. (81d:41011)
- Vértesi, P. p -normal point systems. (81k:41003)
- Watkins, David S. A generalization of the Bramble-Hilbert lemma and applications to multivariate interpolation. (81c:41006)
- Zeller, Karl See Scherer, R., (81m:65017)

41A65 Abstract approximation theory (approximation in normed linear spaces and other abstract spaces)

- Albinus, Günter On the existence of rapidly approximating sequences of finite-dimensional subspaces in spaces of measurable functions. 81a:41050
- Approximation in metric linear spaces. 81a:41051
- Amir, Dan (with Deutsch, Frank) Approximation by certain subspaces in the Banach space of continuous vector-valued functions. 81c:41077
- Andreev, V. I. Continuity of a metric projection in $C(Q)$. (Russian) (See 80j:30003)
- Aron, Richard M. (with Prolla, João Bosco) Polynomial approximation of differentiable functions on Banach spaces. 81c:41078
- Babenko, V. F. Interpolation of continuous mappings by piecewise linear ones. (Russian) 81h:41037
- Bacopoulos, A. (with Godini, G.; Singer, Ivan) On infima of sets in the plane and best approximation, simultaneous and vectorial, in a linear space with two norms. 81m:41039
- Bauer, Heinz Korovkin approximation in function spaces. 81a:41052
- Berens, H. (with Westphal, U.) On the best co-approximation in a Hilbert space. 81m:41040
- Bojanov, Borislav D. See Tihomirov, V. M., 81a:41062
- Borwein, J. M. (with Keener, L. L.) The Hausdorff metric and Čebyšev centres. 81c:41041
- Bridges, Douglas S. On the foundations of best-approximation theory. 81i:41027
- Čakalor, Vladimir L. (with Dimitrov, Emanuil M.) Interpolation and uniform approximation of conjugate functions. (Russian) 81i:41028
- Černík, B. P. A generalization of the notion of the weak Čebyšev system. (Russian) 81g:41041
- Cuyt, Annie A. M. Abstract Padé-approximants in operator theory. 81g:41042
- Deutsch, Frank Existence of best approximations. 81k:41026
- See also Amir, Dan, 81c:41077
- Dimitrov, Emanuil M. See Čakalor, Vladimir L., 81i:41028
- Franchetti, C. (with Singer, Ivan) Best approximation by elements of caverns in normed linear spaces. (Italian summary) 81g:41043
- Freilich, J. H. Simultaneous approximation of a set of complex-valued functions in a normed vector space. 81m:41042
- Godini, G. The distance for vector-valued norms. 81f:41034
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- See also Pai, D. V., 81a:41060
- Gruber, Peter M. Stability of isometries. 81a:41053
- Gusev, A. I. The best approximation in normed modules over semifields. (Russian) 81c:41050
- Henry, Myron S. (with Taylor, D. C.) Approximation in a Banach space defined by a continuous field of Banach spaces. 81i:41029
- Iliev, G. L. Approximation of functions with respect to some A -distances. (Russian) 81b:41086
- Jimenez Pozo, Miguel A. Déformation de la convexité et théorèmes du type Korovkin. (English summary) 81a:41054
- Kac, A. S. The best approximation of an element of a Banach space, with respect to a system of seminorms. (Russian) 81b:41087
- Kašiš, B. S. A property of bilinear forms. (Russian. Georgian and English summaries) 81j:41054
- Keener, L. L. See Borwein, J. M., 81m:41041
- Kiesewetter, H. Zur Konstruktion von besten linearen Approximationen in normierten Räumen. 81b:41088
- Labsker, L. G. Some necessary and sufficient criteria for Korovkin sets for operators of class S_m^0 . (Russian) 81i:41030
- Lambert, Joseph M. (with Milman, Pierre D.) Restricted Chebyshev centers of bounded subsets in arbitrary Banach spaces. 81f:41035
- Lewanowicz, Stanisław Minimal projective operators. (Polish) 81d:41040
- Light, William A. Projections on spaces of continuous functions. 81a:41055
- Łeski, Włodzimierz On the strong approximation of functions belonging to the space L^q ($1 < q < \infty$). 81b:41089
- Malorov, V. E. Linear diameters of Sobolev classes. (Russian) 81f:41036
- Milman, Pierre D. See Lambert, Joseph M., 81f:41035
- Müller, Manfred W. On the degree of L_p -approximation by integral Schoenberg splines. 81c:41079
- Narang, Tulsī Das Fixed point theorems in approximation theory. 81a:41057
- On distance sets. 81a:41056
- Convexity of Chebyshev sets. 81i:41037

- Nevesenko, N. V. p -continuity of the metric projection onto convex closed sets. (Russian) 81a:41058
- Nürnberg, Günther Unicity and strong unicity in approximation theory. 81a:41059
- Strong uniqueness of best approximations and weak Chebyshev systems. 81k:41027
- Nonexistence of continuous selections of the metric projection and weak Chebyshev systems. 81d:41041
- Oimaa, E. V. Continuity points of the metric projection in a space of continuous functions. (Russian) 81c:41044
- Pai, D. V. (with Govindarajulu, P.) On f -proximal points of pairs of sets. 81a:41060
- See also Govindarajulu, P., 81d:41039
- Papini, Pier Luigi (with Singer, Ivan) Best coapproximation in normed linear spaces. 81c:41080
- Poreda, S. J. (with Tepper, David E.) Approximation to linear functionals on H^1 by point evaluations. 81c:41051
- Prkry, Karel (with Richards, Ian) Uniform approximation in the semiring of positive continuous functions. 81m:41043
- Prolla, João Bosco See Aron, Richard M., 81c:41078
- Rao, Geetha S. Simultaneous approximation, interpolation and norm preservation (SAIN). 81a:41061
- Richards, Ian See Prkry, Karel, 81m:41043
- Saatkamp, Klaus Best approximation in the space of bounded operators and its applications. 81i:41031
- Sard, Arthur Integrating terms for inexact differentials. (German summary) 81g:41045
- Sattes, U. Best Chebyshev approximation by smooth functions. 81k:41028
- Scarpellini, Bruno Hilbertraum-Approximation und Jacobi-Matrizen. (English summary) 81k:41029
- Sendov, Bl. Approximation with monotonic operators in A -distance. 81c:41081
- Singer, Ivan See Papini, Pier Luigi, 81c:41080; Franchetti, C., 81g:41043 and Bacopoulos, A.; et al., 81m:41039
- Smirnov, S. V. Approximations of mappings into a group. (Russian) 81h:41038
- Sommer, Manfred Nonexistence of continuous selections of the metric projection for a class of weak Chebyshev spaces. 81g:41046
- Taberski, Roman Approximation in the Fréchet spaces L^p ($0 < p < 1$). 81b:41090
- Taylor, D. C. See Henry, Myron S., 81i:41029
- Tepper, David E. See Poreda, S. J., 81c:41051
- Terehin, A. P. A multiparameter semigroup of operators, mixed moduli and partial approximations. (Russian) 81b:41091
- Tihomirov, V. M. (with Bojanov, Borislav D.) Some convex problems of approximation theory. (Russian) 81a:41062
- Vasil'ev, A. I. Delta-compactness of the algebraic sum of sets. (Russian) 81c:41052
- Vesel'nov, V. M. Weighted approximations in the Hausdorff metric. (Russian) 81b:41092
- Westphal, U. See Berens, H., 81m:41040
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- Abatzoglou, Theagenis Finite-dimensional Banach spaces with a.e. differentiable metric projection. (81b:41062)
- Appel, Ju. Measures of noncompactness and approximations in locally convex spaces. (Russian) (81k:46008)
- Aron, Richard M. Polynomial approximation and a question of G. E. Shilov. (81d:46023)
- Azizov, S. A. (with Dolganov, R. L.) Uniform approximation of abstract harmonic functions. (Russian. Tajiki summary) (81b:41073)
- Babadžanov, S. B. See Tihomirov, V. M.; et al., (81a:46022)
- Balaganskii, V. S. Weak continuity of the metric projection in Banach spaces. (Russian) (81i:41020)
- Bosznay, Ádám P. A remark on the farthest point problem. (81k:46012)
- DeVore, Ronald A. (with Riemenschneider, Sherman D.; Sharpley, Robert C.) Weak interpolation in Banach spaces. (81f:46040)
- Ditzian, Z. Some remarks on approximation theorems on various Banach spaces. (81k:41010)
- Dolganov, R. L. See Azizov, S. A., (81b:41073)
- de la Fuente Antúnez, Angel Approximation of continuous vector functions by continuous functions with finite-dimensional range. (Spanish) (81m:46055)
- Godini, G. Geometrical properties of a class of Banach spaces including the spaces c_0 and L^p ($1 < p < \infty$). (81b:46020)
- Grebennikov, A. I. An optimal method of approximation of the values of nonlinear operators. (Russian) (81k:47091)
- Grundmann, Axel Inverse theorems for Kantorovič polynomials. (81e:41035)
- Gul'sašvili, A. B. An individual interpolation theorem. (Russian. Georgian and English summaries) (81j:46111)
- Heindl, Gerhard Über einen Zusammenhang zwischen optimalen Formeln im Sinne von Sard und besten Formeln im Sinne des minimalen Maximalfehlers. (81k:65024)
- Ismagilov, R. S. See Tihomirov, V. M.; et al., (81a:46022)
- Jonsson, Alf (with Wallin, Hans) The trace to closed sets of functions in R^n with second difference of order $O(h)$. (81b:46046)
- Kononova, N. F. The best approximation of functions in a space with a generalized norm. (Russian) (81f:41030)
- Koscielny, E. (with Krabs, W.) Approximation problems in control theory. (German summary) (81g:93057)
- Krabs, W. See Koscielny, E., (81g:93057)
- Kusainova, L. K. Estimates of diameters of the unit sphere of the function space $L_p(\Omega)$ in $L_q(\Omega)$. (Russian) (81b:46032)
- Lau, Ka Sing On a sufficient condition for proximity. (81b:46033)
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Păltineanu, Gavril Density theorems in spaces of continuous functions. I. (Romanian. English summary) (81k:46021a)

Density theorems in spaces of continuous functions. II. (Romanian) (81k:46021b)

Pervai, A. B. See Malozemov, V. N., (81k:41020)

Prolla, João Bosco The approximation property for Nachbin spaces. (81j:46030)

See also Machado, S., (81g:46069)

Riemenschneider, Sherman D. See DeVore, Ronald A.; et al., (81f:46040)

Sharpley, Robert C. See DeVore, Ronald A.; et al., (81f:46040)

Šoluzur, C. B. Asymptotically optimal cubature formulas with nodes in a curvilinear lattice. (Russian) (81d:41037)

Sommer, Manfred Characterization of continuous selections for the metric projection for generalized splines. (81a:41038)

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Tokov, G. A. Approximation by spline functions in Orlicz spaces. (Russian) (81b:41026)

Wallin, Hans See Jonsson, Alf, (81b:46046)

Watanabe, Hiako Theorems of Korovkin type in an ordered vector space with a locally convex topology. (81h:41028)

Watson, G. A. Allstar Best approximation with prescribed norm. (81m:41018)

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41A80 Remainders in approximation formulas

41A99 Miscellaneous topics

Malink, I. F. r -inscribed curves. (Russian) 81i:41032

Vitale, Richard A. Approximation of convex set-valued functions. 81a:41063

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Klokov, J. Some operations with Čebyšev series. (Russian) (81b:41065)

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(Shisha, Oved) See Turán memorial volume, (81j:41001)

(Turán, Pál) See Turán memorial volume, (81j:41001)

Wang, James Li Ming A note on modulus of approximate continuity on $R(X)$. (81a:46063)

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Some boundary properties and imbedding inequalities of analytic functions. II. (Chinese. English summary) (81j:44010b)

Turán memorial volume ★P. Turán memorial volume. (81j:41001)

42-XX FOURIER ANALYSIS

42-01 Elementary exposition, textbooks

Baggett, Larry (with Fulk, Watson) ★Fourier analysis. 81h:42001

Fulk, Watson See Baggett, Larry, 81h:42001

42-02 Advanced exposition (research surveys, monographs, etc.)

Sadosky, Cora ★Interpolation of operators and singular integrals. 81d:42001

secondary classifications:

Jones, P. W. Structure of A_p weights. (81i:42022)

Mackey, George W. Harmonic analysis as the exploitation of symmetry—a historical survey. (81d:01017)

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42-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Bochner, Salomon Fourier series came first. (81b:01016)

Chatterji, S. D. On the mathematical work of Charles Fefferman. (81f:01035b)

(Fefferman, Charles) See Chatterji, S. D., (81f:01035b) and Igar, Satoru, (81m:01055)

Hewitt, Edwin (with Hewitt, Robert E.) The Gibbs-Wilbraham phenomenon: an episode in Fourier analysis. (81g:01015)

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Fefferman, Charles L. See Igar, Satoru, (81m:01055)

42-04 Explicit machine computation and programs (not the theory of computation or programming)

secondary classifications:

Zohar, Shalhav ★Faster Fourier transformation: the algorithm of S. Winograd. (81d:65075)

42-06 Proceedings, conferences, etc.

(Benedetto, John J.) See Euclidean harmonic analysis, 81d:42002

(de Guzmán, Miguel) See Fourier analysis, 81f:42001

(Peral Alonso, Irene) See Fourier analysis, 81f:42001

(Petrakis, Nicholas) See Harmonic analysis, 81c:42001

(Pichorides, Stylianos K.) See Harmonic analysis, 81c:42001

(Varopoulos, Nicolas) See Harmonic analysis, 81c:42001

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Conference:

Harmonic Analysis ★Harmonic analysis, Iraklion 1978. 81c:42001

El Escorial ★Fourier analysis. 81f:42001

Euclidean harmonic analysis ★Euclidean harmonic analysis. 81d:42002

Fourier analysis ★Fourier analysis. 81f:42001

Harmonic analysis ★Harmonic analysis, Iraklion 1978. 81c:42001

★Euclidean harmonic analysis. 81d:42002

Iraklion ★Harmonic analysis, Iraklion 1978. 81c:42001

Null series: two applications ★Null series: two applications. 81a:42001

Seminar:

Fourier Analysis ★Fourier analysis. 81f:42001

Seminar:

Euclidean Harmonic Analysis ★Euclidean harmonic analysis. 81d:42002

secondary classifications:

Jones, P. W. Structure of A_p weights. (81i:42022)

Colloque:

Analyse Harmonique et Complexe ★Colloque d'Analyse Harmonique et Complexe.

(French) [Colloquium on complex and harmonic analysis] (81a:32001)

Complex analysis ★Colloque d'Analyse Harmonique et Complexe. (French)

[Colloquium on complex and harmonic analysis] (81a:32001)

Harmonic analysis ★Colloque d'Analyse Harmonique et Complexe. (French)

[Colloquium on complex and harmonic analysis] (81a:32001)

★Séminaire d'Analyse Harmonique, 1978–1979. (French) [Seminar on Harmonic

Analysis, 1978–1979] (81j:42001)

La Garde-Freinet ★Colloque d'Analyse Harmonique et Complexe. (French)

[Colloquium on complex and harmonic analysis] (81a:32001)

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[Seminar on Harmonic Analysis, 1978–1979] (81j:42001)

42Axx Fourier analysis in one variable

42A05 Trigonometric polynomials, inequalities, extremal problems

Arestov, V. V. Inequality of various metrics for trigonometric polynomials. (Russian) 81g:42001

Belov, A. S. Estimates for the norms of trigonometric polynomials in intervals and sets. (Russian. English summary) 81j:42001

Bustav, A. P. The best approximation of a differentiation operator. (Russian) 81b:42001

Goetgheluck, Pierre Polynomial inequalities and Markov's inequality in weighted

L^p -spaces. 81k:42001

Hagerup, Uffe The best constants in the Khintchine inequality. 81b:42002

Kalin, B. S. Some properties of a space of trigonometric polynomials connected with uniform convergence. (Russian. Georgian and English summaries) 81k:42002

Some properties of the space of trigonometric polynomials with a uniform norm. (Russian) 81c:42002

Körner, T. W. Ivašev Musatov in many dimensions. 81h:42002

Kristiansen, G. K. Some inequalities for algebraic and trigonometric polynomials. 81c:42001

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Leblanc, Raymond Polynômes trigonométriques extrémaux. 81b:42003

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Natanson, G. I. (with Timan, M. F.) The geometric means of the sequence of best

- approximations. (Russian. English summary) **81d:42003**
 Neval, Paul G. See **Máté, Attila**, **81c:42003**
 Pichorides, Stylianos K. Une remarque sur les polynômes trigonométriques réels dont toutes les racines sont réelles. (English summary) **81c:42002**
 On the L^p norm of exponential sums. **81c:42003**
 Prather, Carl L. On the zeros of derivatives of balanced trigonometric polynomials. **81j:42002**
 Timan, M. F. See **Natanson, G. I.**, **81d:42003**
 Wilmes, Gerhard Some inequalities for Riesz potentials of trigonometric polynomials of several variables. **81b:42004**
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- Heinig, Hans P. Variations of Hardy's inequality. (**81g:26006**)
 Korniichuk, M. P. Extremal properties of splines. (Russian) (**81c:41013**)
 Laurinćikas, Antanas Sur les séries de Dirichlet et les polynômes trigonométriques. (Russian) (**81b:41060**)
 Makovoz, Ju. I. Diameters of Sobolev classes and splines deviating least from zero. (Russian) (**81b:41060**)
 Merlina, N. I. On the question of approximating continuous functions by linear approximation methods. (Russian. English summary) (**81c:41024**)
 Pichorides, Stylianos K. Supplement to: *Norms of exponential sums* [Dépt. Math., Univ. Paris-Sud, Orsay, 1977; MR 57 #16222]. (**81d:10030**)
 Pisier, Gilles Les inégalités de Khintchine-Kahane, d'après C. Borell. (**81c:60005**)
 Schroth, Peter On the summation problem of periodic functions. (**81j:42025**)
 Taberski, Roman Approximation in the Fréchet spaces L^p ($0 < p < 1$). (**81b:41090**)

42A10 Trigonometric approximation

- Balborodor, S. P. Approximation of functions by de la Vallée Poussin sums. (Russian) **81f:42002**
 Baskakov, V. A. The order of approximation of differentiable functions by linear positive operators. (Russian) **81b:42005**
 Some linear means of Fourier series. (Russian) **81a:42002**
 Bleimann, G. (with Stark, Eberhard L.) The fine structure of periodic approximate identities. **81j:42003**
 (with Stark, Eberhard L.) Distance conditions for the zeros of peaking cosine polynomials. **81j:42004**
 (with Stark, Eberhard L.; Wilmes, Gerhard) A construction of processes of best approximation. **81g:42003**
 (with Stark, Eberhard L.) An elementary construction of periodic singular integrals achieving the order of best approximation. **81a:42003**
 Bulanich, A. V. Best harmonic approximation in the mean of certain functions. (Russian) **81b:42006**
 Dahmen, Wolfgang Trigonometric approximation with exponential error orders. II. Properties of asymptotically optimal processes: impossibility of arbitrarily good error estimates. **81c:42004**
 Doronin, V. G. (with Ligin, A. A.) Exact values of best one-sided approximations of certain classes of periodic functions. (Russian) **81b:42007**
 Dudas, V. O. Approximation of continuous periodic functions by de la Vallée Poussin sums. (Russian) **81a:42004**
 Džumagulov, A. K. (with Falaleev, L.) Approximation of functions of the class $W(r)$ by Cesàro integrals. (Russian) **81b:42008**
 Best approximations of classes of differentiable functions representable by trigonometric series with "small" gaps. (Russian) **81j:42005**
 Falaleev, L. See **Džumagulov, A. K.**, **81b:42008**
 Gavriljuk, V. T. The approximation in the L -metric of integrable functions by trigonometric polynomials. (Russian) **81b:42009**
 Approximation in the L -metric of summable periodic functions by trigonometric polynomials. (Russian) **81b:42010**
 (with Stečkin, S. B.) Approximation of continuous functions by Fourier sums. (Russian) **81b:42011**
 Approximation in the L -metric of summable periodic functions by Fourier sums. (Russian) **81g:42004**
 Holland, Anthony S. B. (with Sahney, B. N.) On degree of approximation by Euler (E, q)-means. **81b:42004**
 Khan, Huzoor H. On the degree of approximation to a function belonging to weighted ($L^p, \psi(t)$) class. **81a:42005**
 (with Wafi, A.) On the degree of approximation by matrix means. **81c:42003**
 Kroó, A. On the uniform modulus of continuity of the operator of best approximation in the space of periodic functions. **81a:42006**
 Kuzmeca, O. I. (with Trigub, R. M.) Two-sided estimations of the approximation of functions by Riesz and Marcinkiewicz means. (Russian) **81c:42004**
 Ligin, A. A. See **Doronin, V. G.**, **81b:42007**
 Lyche, T. (with Winther, Ragnar) A stable recurrence relation for trigonometric B -splines. **81a:42007**
 Meinardus, Günter Periodic splines and Fourier analysis. **81j:42006**
 Muhtarov, G. I. Fourier-Jacobi coefficients. (Russian) **81g:42005**
 Natanson, G. I. See **Žak, V. V.**, **81b:42004**
 Ostolkov, K. I. Lebesgue's inequality in the mean. (Russian) **81c:42005**
 Peherstorfer, Franz On the representation of extremal functions in the L^1 -norm. **81b:42012**
 Popov, V. A. A note on one-sided approximation of functions. (Russian) **81c:42006**
 Radoslava, T. V. Approximation of continuous functions by trigonometric polynomials almost everywhere. (Russian) **81b:42013**
 Rvačov, V. O. An orthonormal system on the basis of the function $\psi_p(x)$. (Russian) **81a:42008**
 Sahney, B. N. See **Holland, Anthony S. B.**, **81b:42004**
 Sapilidi, T. M. Approximation of continuous functions by Riesz sums. (Russian) **81b:42014**

- Schurer, F. (with Steutel, F. W.) On the degree of approximation of functions in C_1^1 with operators of the Jackson type. **81a:42009**
 Sha, Zhen Approximation of periodic continuous functions by operators. (Chinese. English summary) **81b:42015**
 Stark, Eberhard L. See **Bleimann, G.**, **81a:42003**; **Bleimann, G.**; et al., **81g:42003**; **Bleimann, G.**, **81j:42003** and **Bleimann, G.**, **81j:42004**
 Stečkin, S. B. See **Gavriljuk, V. T.**, **81b:42011**
 Stepanec, O. I. A sharp estimate of the deviations of Favard sums over the classes $H_{\lambda,1}^1$. (Russian) **81b:42016**
 Elements of the behavior of the Favard kernel. (Russian) **81b:42017**
 Simultaneous approximation of periodic functions and their derivatives by Fourier sums. (Russian) **81m:42001**
 Exact estimates of deviations of Favard sums on classes of continuous periodic functions of two variables. (Russian) **81b:42005**
 See also **Zaderej, N. N.**, **81b:42006**
 Steutel, F. W. See **Schurer, F.**, **81a:42009**
 Storoženko, E. A. Theorems of Jackson type in H^p , $0 < p < 1$. (Russian) **81b:42003**
 Sunouchi, G. Saturation of certain trigonometric interpolation polynomials. **81g:42007**
 Taikov, L. V. Structural and constructive characteristics of functions from L_2 . (Russian) **81b:42002**
 Best approximations in $L_2(0, 2\pi)$ of classes of periodic functions with derivative of bounded variation. (Russian) **81m:42002**
 Temljakov, V. N. On the question of the asymptotic behavior of the best approximation of continuous functions. (Russian) **81c:42006**
 Trigub, R. M. See **Kuzmeca, O. I.**, **81c:42004** and **Zagorodnii, N. A.**, **81g:42008**
 Wafi, A. See **Khan, Huzoor H.**, **81c:42003**
 Wilmes, Gerhard See **Bleimann, G.**; et al., **81g:42003**
 Winther, Ragnar See **Lyche, T.**, **81a:42007**
 Xie, Ting Fan Pavlovskii's approximation method. (Chinese) **81c:42004**
 On approximation of differentiable function by Fourier sums. **81b:42003**
 Yang, Yi Qun Uniform approximation of a class of functions by Cesàro means of negative order for Fourier series. (Chinese) **81c:42005**
 Zaderej, N. N. (with Stepanec, O. I.) Approximation by Fourier sums on classes of periodic functions defined by polyharmonic operators. (Russian) **81b:42006**
 Zaderej, P. V. Approximation of discontinuous functions by de la Vallée Poussin sum. (Russian) **81f:42003**
 Zagorodnii, N. A. (with Trigub, R. M.) A question of Salem. (Russian) **81g:42008**
 Žak, V. V. (with Natanson, G. I.) Constants in direct theorems of approximation theory. (Russian. English summary) **81c:42004**

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- v. Golitschek, Manfred Approximation by imaginary exponential sums. (**81b:41051**)
 Korniichuk, M. P. Duality theorems and extremal problems of best approximation. (Russian) (**81b:41066**)
 Králík, Dezső Elementary methods of the theory of series in approximation theory. (Hungarian) (**81m:40007**)
 Laurinćikas, Antanas A limit theorem for Dirichlet L -series. (Russian) (**81g:10065**)
 Natanson, G. I. (with Timan, M. F.) The geometric means of the sequence of best approximations. (Russian. English summary) (**81c:42003**)
 Peherstorfer, Franz Trigonometric polynomial approximation in the L^1 -norm. (**81d:41035**)
 Rubin, V. I. Diameters of sets in spaces of periodic functions. (Russian) (**81m:41020**)
 Shi, Xian Liang Asymptotic expansions of some linear operators. (Chinese) (**81c:41033**)
 Stepanec, O. I. See **Zaderej, P. V.**, (**81j:42024**)
 Švedov, A. S. Jackson's theorem in L^p , $0 < p < 1$, for algebraic polynomials and order of comonotone approximations. (Russian) (**81c:41017**)
 Taberski, Roman Indirect approximation theorems in L^p -metrics ($1 < p < \infty$). (**81f:41031**)
 Approximation in the Fréchet spaces L^p ($0 < p < 1$). (**81b:41090**)
 Tibomirov, V. M. Theory of extremal problems, and approximation theory. (Russian) (**81g:41001**)
 Timan, M. F. See **Natanson, G. I.**, (**81d:42003**)
 Wilmes, Gerhard Some inequalities for Riesz potentials of trigonometric polynomials of several variables. (**81b:42004**)
 Zaderej, P. V. (with Stepanec, O. I.) On the approximation of conjugate functions from Hölder classes by Fejér means. (Russian summary) (**81j:42024**)

42A15 Trigonometric interpolation

- Bojanov, Borislav D. Favard's interpolation problem for periodic functions. **81b:42007**
 Cavaretta, Alfred S., Jr. (with Sharma, Ambikeshwar; Varga, Richard S.) Lacunary trigonometric interpolation on equidistant nodes. **81b:42004**
 Kis, Ottó Some methods for approximation of functions. (Russian) **81j:42007**
 Koch, P. E. (with Lyche, T.) Bounds for the error in trigonometric Hermite interpolation. **81c:42005**
 Kuttner, B. (with Sahney, B. N.) Summability of interpolating polynomials. **81j:42000**
 Liozorkin, P. I. (with Orlovskii, D. G.) Some interpolation formulas for trigonometric and exponential polynomials and estimates associated with them. (Russian) **81d:42005**
 Lyche, T. See **Koch, P. E.**, **81c:42005**
 Orlovskii, D. G. See **Liozorkin, P. I.**, **81d:42005**
 Sahney, B. N. See **Kuttner, B.**, **81j:42000**
 Sharma, Ambikeshwar See **Cavaretta, Alfred S., Jr.**; et al., **81b:42004**
 Stens, R. L. Error estimates for sampling sums based on convolution integrals. **81c:42009**
 Szabados, J. On an interpolation-theoretic extremum problem. **81c:42006**
 Valnerman, Ju. R. Approximation of functions of class H_2^2 by trigonometric interpolation polynomials with equidistant nodes. (Russian) **81b:42008**
 Varga, Richard S. See **Cavaretta, Alfred S., Jr.**; et al., **81b:42004**

secondary classifications:

Szabados, J. On some convergent interpolatory polynomials. (81g:41009)

42A16 Fourier coefficients, Fourier series of functions with special properties, special Fourier series

Aliyeva, E. Transforms of Fourier coefficients of some classes of functions. (Russian) 81e:42007

Arocena, Rodrigo. Une version du théorème de Helson et Szegő, une famille associée de fonctions de H^1 et la détermination des mesures extrémales. (English summary) 81a:42010

Berita, M. See Potapov, M. K., 81e:42009

Čuntarija, Z. A. On the convergence of a series of Fourier coefficients. (Russian. Georgian and English summaries) 81m:42003

Crails, T. T. Asymptotic representations of Fourier coefficients in series of classical orthogonal polynomials. (Russian) 81b:42018

Cooke, Roger L. The Cantor-Lebesgue theorem. 81b:42019

Dixit, S. S. (with Shukla, Y. S.) On a sequence of Fourier coefficients. 81f:42004

Duchod, Miloslav. Fourier coefficients of continuous linear mappings on homogeneous Banach spaces. (Russian summary) 81e:42007

Ganija, N. G. Fourier coefficients of functions equimeasurable with a given integrable function. (Russian. English and Georgian summaries) 81b:42020

Hristov, V. H. See Petrushev, P. P., 81b:42023

Jankov, G. S. On the boundedness in L space of partial sums of Fourier-Stieltjes series of a function with bounded variation. (Russian. Georgian and English summaries) 81e:42006

Kuratsubo, Shigehiko. Note on Fourier coefficients. 81b:42021

Langebartel, R. G. Fourier expansions of rational fractions of elliptic integrals and Jacobian elliptic functions. 81e:42008

MacLean, H. Alan. Modifications of Fourier transforms and singular continuous measures. 81b:42022

Pak, L. N. On sums of trigonometric series. (Russian) 81m:42004

Petrushev, P. P. (with Hristov, V. H.) Generalization of the Dini-Lipschitz test for uniform convergence of Fourier series. (Russian) 81b:42023

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Saeki, Sadahiro. On convolution squares of singular measures. 81b:42005

Shukla, Y. S. See Dixit, S. S., 81f:42004

Steiner, Antonio. Plancherel's theorem and the Shannon series derived simultaneously. 81e:42010

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Dolisenko, E. P. Some sharp integral estimates of the derivatives of rational and algebraic functions. Applications. (Russian. English summary) 81d:41017

Doroni, V. G. (with Ligan, A. A.) The exact solution to some extremal problems on classes of functions determined by an integral modulus of continuity. (Russian) (81e:41044)

Extor, Harold. Basic Fourier series. (81e:33008)

Kahane, Charles. Generalizations of the Riemann-Lebesgue and Cantor-Lebesgue lemmas. (81d:40001)

Ligan, A. A. See Doroni, V. G., (81e:41044)

Pigno, Louis (with Smith, Brent). Quantitative behavior of transforms with norm-bounded partial sums. (81e:42015)

Smith, Brent. See Pigno, Louis, (81e:42015)

42A20 Convergence of Fourier and trigonometric series

Bojanic, R. An estimate of the rate of convergence for Fourier series of functions of bounded variation. 81d:42006

Boman, J. On a problem concerning moduli of smoothness. 81b:42025

Calderón, Calixto P. (with Sagher, Yoram) On the Fourier series of certain smooth functions. 81j:42010

Cao Jia Ding. Solution of an approximation problem of J. Favard. (Chinese) 81b:42026

Chandra, Prem. A new criterion for the convergence of Fourier series. 81b:42027

Ch'en, Chao Ti. On divergence of Vilenkin-Fourier series. 81c:42008

Chernoff, Paul R. Pointwise convergence of Fourier series. 81b:42028

Fomin, G. A. Mean convergence of Fourier series. (Russian) 81b:42029

Guliyev, A. B. On the convergence of expansions of rearranged and sign-changed functions. (Russian. Georgian and English summaries) 81b:42006

Gurichadivili, R. I. Convergence and boundedness in L of the Fourier series of a monotone function. (Russian. Georgian and English summaries) 81b:42030

Krotov, V. G. Strong approximation by Fourier series and differentiability properties of functions. (Russian summary) 81c:42009

Lukatsenko, S. Ju. Bounded divergence of trigonometric series. (Russian) 81e:42011

Men'šov, D. E. On limit functions of trigonometric series. (See 80c:00006)

On limits of indeterminacy of partial sums of universal trigonometric series. (See 80c:00006)

Oskolkov, K. I. Approximate properties of classes of periodic functions. (Russian) 81j:42011

Rubio de Francia, José L. Vector-valued inequalities for Fourier series. 81d:42007

Saakjan, A. A. Properties of Fourier coefficients of the superposition of functions. (Russian) 81b:42031

Sagher, Yoram. See Calderón, Calixto P., 81j:42010

Sharma, K. M. See Singh, Niranjana, 81d:42008

Singh, Niranjana (with Sharma, K. M.) Convergence of certain cosine sums in a metric space — L . 81d:42008

Stoichka, S. B. Estimation of the remainder for the Fourier series for differentiable functions. (Russian) 81e:42012

Tandori, Károly. On the divergence of de la Vallée Poussin means of Fourier series. (Russian summary) 81b:42032

Tasche, Manfred. Zur Konvergenzbeschleunigung von Fourier-Reihen. 81b:42033

Teitk, V. On structural properties of functions arising from strong approximation of Fourier series. 81a:42011

Wang, Si Lei. On a problem posed by Zygmund. (Chinese) 81b:42007

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Kamoldinova, D. The rate of convergence of the Fourier integral and of the conjugate integral of the function whose measure of continuity on the interval is given in the mean. (Russian. Tajiki summary) (81m:42010)

Korniluk, M. P. Extremal properties of splines. (Russian) (81e:41013)

Men'šov, D. E. Universal sequences of functions. (See 80c:00006)

Schipp, Ferenc. On Carleson's method. (81a:60061)

Sharma, K. M. See Singh, Niranjana, (81c:42013)

Singh, Niranjana (with Sharma, K. M.) Convergence of a trigonometric series in the metric space L . (Arabic summary) (81c:42013)

Vaghar, A. I. On the quiconvergence of expansions in trigonometric Fourier series and in principal functions of ordinary differential operators. (Russian) (81m:34028)

42A24 Summability of Fourier and trigonometric series

Ahmad, Z. U. (with Rahiman, P. M. Abdul) On $|J, p_n|_1$ -summability of Fourier series. I. 81a:42012

Balarastanova, A. S. Summation of subsequences of partial sums of Fourier series. (Russian) 81a:42013

Summation of subsequences of Fourier series. (Russian. English summary) 81d:42009

Dimitrov, M. M. Poisson's summation formula for distributions. (Russian) 81b:42008

Dudas, V. O. Approximation of continuous periodic functions by de la Vallée Poussin sums. (Russian) 81a:42014

Fomin, G. A. A -integrability of trigonometric series. (Russian) (See 81c:32001)

Ganguly, Ashok. On (N, p_n) summability of Fourier series and its conjugate series. 81a:42015

On the matrix summability of Fourier series. 81m:42005

See also Jain, R. K., 81b:42035

Holland, Anthony S. B. (with Salmey, B. N.; Trimbalaro, Jean) A criterion for Taylor summability of Fourier series. 81b:42034

Jain, H. C. On the Riesz summability of Fourier series. (Hindi. English summary) 81e:42013

On $(R, \lambda(w), \delta)$ $(C, 1)$ summability of Fourier series. 81f:42005

Jain, R. K. (with Ganguly, Ashok) On the strong (J, p_n) -summability of Fourier series. 81b:42035

Kazarian, K. S. The property of being a basis, for subsystems of the trigonometric system in the space $L^p(\mathbb{R})$, $1 < p < \infty$. (Russian. Armenian summary) 81j:42012

Leindler, L. New sequels of a problem of Alexits. 81j:42013

Long, Rui Lin. Sommes partielles de Fourier des fonctions bornées. (English summary) 81b:42036

Partial sums of Fourier series of bounded functions. (Chinese. English summary) 81b:42037

Markiewicz, Teresa. Sur l'approximation des fonctions par les moyennes de Nörlund des séries de Fourier et leurs conjuguées. 81b:42008

Men'šov, D. E. Limits of indeterminacy in measure of T -means of subseries of a trigonometric series. (Russian) 81c:42010

Mukhopadhyay, S. N. On the Abel limit of the terms of trigonometric series. 81c:42011

Petrov, A. Ju. Representation of a monotone function by a trigonometric series. (Russian) 81b:42009

Podkorytov, A. N. Fejér means in a two-dimensional case. (Russian. English summary) 81g:42010

Prasad, Rajendra (with Saxena, Ashok) On the uniform Nörlund summability of the conjugate series of the Fourier series. 81j:42014

Rahman, P. M. Abdul. See Ahmad, Z. U., 81a:42012

Saginjan, L. A. Summability to infinity of trigonometric series and of series in the Walsh system. (Russian) 81b:42038

Salmey, B. N. See Holland, Anthony S. B.; et al., 81b:42034

Saxena, Ashok. See Prasad, Rajendra, 81j:42014

Shi, Xian Liang (with Yu, Xiang Ming) Cesàro means of negative degree of Fourier series. (Chinese) 81b:42039

Siddiqi, Rafat Nabi. On determination of the jump of a function of Wiener's class. (Arabic summary) 81d:42010

Singh, A. P. See Tripathi, L. M., 81e:42014 and Tripathi, L. M., 81f:42006

Singh, Ramji. A necessary and sufficient condition for the absolute Cesàro summability of a series associated with Fourier series. 81j:42015

Singh, Vikramaditya. On the $|E, q|$ summation of the Fourier series. (Russian summary) 81b:42009

Survillo, G. S. Cesàro summability of series with respect to periodic multiplicative orthonormal systems. (Russian) 81c:42012

Tabarski, Roman. On Cesàro means of Fourier series. 81d:42011

Tripathi, R. M. Summability of Fourier series at Lebesgue points and a Banach algebra of functions. (Russian) (See 80g:30003)

Tripathi, L. M. (with Singh, A. P.) On $(N, 1/(n+1))$ summability of the conjugate derived Fourier series. 81f:42006

(with Singh, A. P.) On Nörlund summability of Fourier series and its conjugate series. 81e:42014

Trimbalaro, Jean. See Holland, Anthony S. B.; et al., 81b:42034

Yu, Xiang Ming. See Shi, Xian Liang. 81b:42039
 Trudy Mat. Inst. Steklov. See Men'lov, D. E., 81c:42010

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- Dixit, S. S. (with Shukla, Y. S.) On a sequence of Fourier coefficients. (81f:42004)
 Kis, Ottó Some methods for approximation of functions. (Russian) (81j:42007)
 Leski, Włodzisław On the strong approximation of functions belonging to the space L^q ($1 < q < \infty$). (81b:41089)
 Sapliidi, T. M. Approximation of functions of Hölder classes by Steklov sums. (Russian) (81c:41023)
 Schroth, Peter On the summation problem of periodic functions. (81j:42025)
 Shukla, Y. S. See Dixit, S. S., (81f:42004)
 Tomić, Miloš Saturation classes for a logarithmic mean method of Fourier series summation. (Russian. Serbo-Croatian summary) (81a:41037)
 A generalized logarithmic summation method and saturation classes in the spaces C and L_p . (Russian. Serbo-Croatian summary) (81b:41056)
 Totik, V. On structural properties of functions arising from strong approximation of Fourier series. (81a:42011)
 Yang, Yi Qun Uniform approximation of a class of functions by Cesàro means of negative order for Fourier series. (Chinese) (81c:42005)

42A28 Absolute convergence, absolute summability

- Alexits, G. On the absolute convergence of certain functional series. 81b:42040
 Arémiadis, Nicolas K. Criteria for absolute convergence of Fourier series. 81d:42012
 Bekollé, David (with Bonami, Aline) Inégalités à poids pour le noyau de Bergman. (English summary) 81c:42015
 Bonami, Aline See Bekollé, David, 81c:42015
 Chandra, Prem Absolute summability by Riesz means. 81b:42041
 On the absolute Euler summability factors for Fourier series and its conjugate series. 81g:42011
 (with Mohapatra, Ram Narayan) Absolute Nörlund summability factors of Fourier series. 81k:42009
 Errata corrigé: "On a theorem of Bosanquet" [Boll. Un. Mat. Ital. (4) 12 (1975), no. 3, 126-140; MR 54 #13439]. (Italian summary) 81c:42016
 Absolute Euler summability of allied series of the Fourier series. 81c:42017
 (with Gupta, R. R.) Absolute summability by Riesz means. 81c:42018
 Chaturvedi, M. D. Absolute Riesz summability factors for a Fourier series and its conjugate series. 81k:42010
 Ganguly, Ashok (with Madan, B. K.) On absolute matrix summability of a factored Fourier series. 81j:42016
 Garrett, J. W. (with Rees, C. S.; Stanojević, Č. V.) L^1 -convergence of Fourier series with coefficients of bounded variation. 81c:42010
 Gautam, L. P. See Gupta, R. R., 81a:42016
 Gupta, R. R. (with Gautam, L. P.) Absolute convergence of Fourier series. 81a:42016
 Gupta, R. R. See Chandra, Prem, 81c:42018
 Kanno, Kōji A note on the absolute summability of a factored Fourier series. 81b:42042
 Lal, Shiva Narain (with Singh, K. N.) Generalised Lipschitz class of functions and the absolute summability of Fourier series by Nörlund means. 81j:42017
 Madan, B. K. See Ganguly, Ashok, 81j:42016
 Mittal, M. L. See Prasad, G., 81d:42013
 Mohapatra, Ram Narayan See Chandra, Prem, 81k:42009
 Novikova, N. S. (with Volkova, N. I.) Absolute summability of degree p of series that are connected with Fourier series, by triangular matrix methods. (Russian) 81c:42019
 Patra, B. On the absolute logarithmic summability of successively derived Fourier series. 81f:42007
 Prakash, Ved On the absolute summability of a series related to Fourier series. 81f:42008
 Prasad, G. (with Mittal, M. L.) On absolute matrix summability of a sequence of Fourier coefficients. 81d:42013
 Prasad, Kanhaiya On the strong matrix summability of ultraspherical series. 81j:42011
 Pritula, Ja. G. Absolute convergence of Fourier series and particular moduli of smoothness. (Ukrainian. Russian summary) 81j:42018
 Rees, C. S. See Garrett, J. W.; et al., 81i:42010
 Singh, K. N. See Lal, Shiva Narain, 81j:42017
 Singh, Tikam Absolute Cesàro summability of Laguerre series. (Hindi. English summary) 81b:42043
 Stanojević, Č. V. See Garrett, J. W.; et al., 81i:42010
 Volkova, N. I. See Novikova, N. S., 81c:42019

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- Atzmon, Aharon Boundary values of absolutely convergent Taylor series. (81j:30008)
 Avestijan, R. A. Sets of absolute convergence. (Russian) (81b:42053)
 Benke, George Bernstein's theorem for compact groups. (81i:43013)
 Chandra, Prem (with Mohapatra, Ram Narayan) On absolute summability factors of infinite series and their application to Fourier series. II. (French summary) (81c:40010)
 Mohapatra, Ram Narayan See Chandra, Prem, (81c:40010)
 Sharma, Sushil On absolute Nörlund summability factor of Legendre series. (81g:42029)

42A32 Trigonometric series of special types (positive coefficients, monotonic coefficients, etc.)

- Gurielavi, R. I. Integrability of a majorant of partial sums of a Fourier series. (Russian. Georgian and English summaries) 81a:42017
 Ram, Babu A sufficient condition for the integrability of Rees-Stanojević sum. 81b:42044
 Integrability of Rees-Stanojević sums. 81i:42012
 Sharma, K. M. See Singh, Niranjan, 81c:42013

Singh, Niranjan (with Sharma, K. M.) Convergence of a trigonometric series in the metric space L . (Arabic summary) 81c:42013

secondary classifications:

Pak, I. N. On sums of trigonometric series. (Russian) (81m:42004)

42A38 Fourier and Fourier-Stieltjes transforms and other transforms of Fourier type

- Auslander, Louis (with Tolimieri, R.) Is computing with the finite Fourier transform pure or applied mathematics? 81c:42020
 Bieberich, Richard Bounded functions with no spectral gaps. 81b:42010
 Boas, R. P., Jr. (with Prather, Carl L.) Final sets for operators on finite Fourier transforms. 81b:42045
 Bracewell, Ronald N. ★ The Fourier transform and its applications. 81k:42011
 Havin, V. P. See Jörkcke, B., 81c:42021
 Jörkcke, B. (with Havin, V. P.) The indeterminacy principle for operators that commute with a shift. I. (Russian. English summary) 81c:42021
 Le Čyong Tung Mean ϵ -dimension of the class of functions whose Fourier transformations have support contained in a given set. (Russian. English summary) 81m:42006
 Lugannani, Robert (with Rice, Stephen) Expressions for the behavior of a Fourier transform near its singularities. 81k:42012
 Łuks-Ogrodnik, Barbara Application of the Čebyšev transform method to the approximation of functions of two variables. (Polish. Russian and English summaries) 81d:42014
 Mercer, A. McD. An approximation to the Fourier transform. 81c:42014
 Ostrogorski, Tatjana Global and local saturation theorems in some spaces of temperate functions. 81c:42022
 Pigno, Louis (with Smith, Brent) Quantitative behavior of transforms with norm-bounded partial sums. 81c:42015
 Transforms which almost vanish at infinity. 81b:42046
 Prather, Carl L. See Boas, R. P., Jr., 81b:42045
 Rice, Stephen See Lugannani, Robert, 81k:42012
 Rose, Donald J. Matrix identities of the fast Fourier transform. 81j:42019
 Smith, Brent See Pigno, Louis, 81c:42015
 Steiner, Antonio A uniqueness theorem for square integrable high-pass functions. 81m:42007
 Tolimieri, R. See Auslander, Louis, 81c:42020

secondary classifications:

- Anderson, Ronald M. (with Sartain, Robert L.) The Carleman-Fourier transform of a product. (81b:46040)
 Arhipov, G. I. (with Karacuba, A. A.; Čubarikov, V. N.) Trigonometric integrals. (Russian) (81f:10050)
 Belinskii, É. S. (with Lifljand, I. R.) Lebesgue constants and integrability of the Fourier transform of a radial function. (Russian. English summary) (81i:42016)
 Berg, Christian The Stieltjes cone is logarithmically convex. (81a:44002)
 Čubarikov, V. N. See Arhipov, G. I.; et al., (81f:10050)
 Duchon, Miloslav Fourier coefficients of continuous linear mappings on homogeneous Banach spaces. (Russian summary) (81c:42007)
 Karacuba, A. A. See Arhipov, G. I.; et al., (81f:10050)
 Kruse, K.-D. Abschätzung von Funktionen beschränkter Variation durch ihre Fourier-Stieltjes-Transformierten. (81g:42002)
 Lifljand, I. R. See Belinskii, É. S., (81i:42016)
 Malliavin, Paul On the multiplier theorem for Fourier transforms of measures with compact support. (81c:42023)
 McKennon, Kelly The multiplication functions of Kučera. (81c:46032)
 Meinardus, Günter Periodic splines and Fourier analysis. (81j:42006)
 Mintzer, Frederick C. See Teaney, Dale T.; et al., (81c:44010)
 Morozzi, Victor L. See Teaney, Dale T.; et al., (81c:44010)
 Mugher, Dale H. The discrete Paley-Wiener theorem. (81m:30052)
 Ostrovskii, I. V. A class of functions of bounded variation on the line defined by their values on a half line. (Russian. English summary) (81b:30034)
 Sartain, Robert L. See Anderson, Ronald M., (81b:46040)
 Sidi, Avram Extrapolation methods for oscillatory infinite integrals. (81m:40002)
 Soni, Kusum Exact error terms in the asymptotic expansion of a class of integral transforms. I. Oscillatory kernels. (81k:44003)
 Teaney, Dale T. (with Morozzi, Victor L.; Mintzer, Frederick C.) The tempered Fourier transform. (81c:44010)

42A45 Multipliers

- Fefferman, Robert A. Covering lemmas, maximal functions and multiplier operators in Fourier analysis. 81f:42009
 Gasper, George (with Trebels, Walter) Multipliers and Parseval type formulas for Jacobi series. 81c:42016
 Goes, Günther Multipliers between Lipschitz spaces and Zygmund spaces. 81j:42020
 Inglis, Ian R. On a class of singular integrals and multipliers. (Italian. English summary) 81m:42008
 Kurtz, Douglas S. (with Wheeden, Richard L.) Results on weighted norm inequalities for multipliers. 81j:42021
 Malliavin, Paul On the multiplier theorem for Fourier transforms of measures with compact support. 81c:42023
 Mertens, H. J. (with Nessel, Rolf Joachim) Über Multiplikatoren starker Konvergenz für Fourier-Entwicklungen in Banach-Räumen. 81a:42018
 Nessel, Rolf Joachim See Mertens, H. J., 81a:42018
 Plazzi, Piero A theorem on Fourier L^p -multipliers. (Italian. English summary) 81g:42012

- Ramazanov, M. D. Finite-difference approximations of multipliers. (Russian) **81a:42019**
 Treble, Walter See Gasper, George, **81c:42016**
 Wheeden, Richard L. See Kurtz, Douglas S., **81j:42021**

secondary classifications:

- Khalil, Rashid The Hankel multipliers. (81m:43006)
 Verbitskii, I. E. Multipliers of spaces l_p^s . (Russian) (81m:30054)

42A50 Conjugate functions, conjugate series, singular integrals

- Arfin, Khurshidul (with Saxena, Ashok) On the strong (L) summability of the $(C, 1)$ mean of a conjugate series of a Fourier series. **81f:42010**
 Ash, J. Marshall (with Ash, P. F.; Fefferman, Charles; Jones, R. L.) Singular integral operators with complex homogeneity. **81f:42011**
 Ash, P. F. See Ash, J. Marshall; et al., **81f:42011**
 Bernstein, Albert II Some sharp inequalities for conjugate functions. **81d:42015**
 Calogero, F. Singular integral operators with integral eigenvalues and polynomial eigenfunctions. (Italian and Russian summaries) **81c:42024a**
 Erratum: "Singular integral operators with integral eigenvalues and polynomial eigenfunctions". **81c:42024b**
 Coifman, Ronald R. (with Meyer, Yves) Commutators of singular integrals. **81d:42016**
 On operators of harmonic analysis which are not convolutions. **81f:42012**
 (with Meyer, Yves) Le théorème de Calderón par les "méthodes de variable réelle". (English summary) **81m:42009**
 Cotlar, Mischa (with Sadosky, Cora) On the Helson-Szegő theorem and a related class of modified Toeplitz kernels. **81j:42022**
 Davis, Burgess Hardy spaces and rearrangements. **81b:42011**
 Fefferman, Charles See Ash, J. Marshall; et al., **81f:42011**
 Fefferman, Robert A. A note on singular integrals. **81c:42025**
 Jahn, H. C. A note on Nörlund summability of the conjugate series of a Fourier series. (Hindi. English summary) **81d:42017**
 Jones, Peter W. A constructive decomposition of $BMO(R)$ into L^∞ plus Hilbert transform of L^∞ . **81c:42017**
 Extension theorems for BMO . **81b:42047**
 Jones, R. L. See Ash, J. Marshall; et al., **81f:42011**
 Jurov, P. G. A singular integral with a logarithmic weight. (Russian) **81a:42020**
 Kamoliddinov, D. The rate of convergence of the Fourier integral and of the conjugate integral of the function whose measure of continuity on the interval is given in the mean. (Russian. Tajiki summary) **81m:42010**
 Lakaenen, T. P. Integrals of conjugate functions. (Russian) **81a:42021**
 Meyer, Yves See Coifman, Ronald R., **81d:42016** and Coifman, Ronald R., **81m:42009**
 Pathak, A. On convolution structure for conjugate Fourier series in a Banach space. (Hindi. English summary) **81c:42018**
 Sadosky, Cora See Cotlar, Mischa, **81j:42022**
 Sahu, V. V. Local estimate for a one-dimensional singular integral and its application. (Russian) **81j:42023**
 Saxena, Ashok See Arfin, Khurshidul, **81f:42010**
 Stepanec, O. I. See Zaderai, P. V., **81j:42024**
 Talleson, Mitchell H. (with Weiss, Guido) The molecular characterization of Hardy spaces. **81i:42013**
 Weiss, Guido See Talleson, Mitchell H., **81i:42013**
 Zaderai, P. V. (with Stepanec, O. I.) On the approximation of conjugate functions from Hölder classes by Fejér means. (Russian summary) **81j:42024**

secondary classifications:

- Baernstein, Albert II How the ϵ -function solves extremal problems. (81b:30028)
 Fefferman, Robert A. Covering lemmas, maximal functions and multiplier operators in Fourier analysis. (81f:42009)
 Ganguly, Ashok On (N, p_n) summability of Fourier series and its conjugate series. (81a:42015)
 Jones, Peter W. Carleson measures and the Fefferman-Stein decomposition of $BMO(R)$. (81d:30059)
 Konjagin, S. V. Approximation properties of closed sets in Banach spaces and the characterization of strongly convex spaces. (Russian) (81b:46022)
 Madych, W. R. Distributions with strong maximal functions in $L^p(R^n)$. (81d:42031)
 Natanson, G. I. See Žuk, V. V., (81i:42004)
 Prasad, Rajendra (with Saxena, Ashok) On the uniform Nörlund summability of the conjugate series of the Fourier series. (81j:42014)
 Saxena, Ashok See Prasad, Rajendra, (81j:42014)
 Simonjan, A. S. Lacunary series and conjugate functions. (Russian) (81b:42049)
 Singh, A. P. See Tripathi, L. M., (81c:42014) and Tripathi, L. M., (81f:42006)
 Talleson, Mitchell H. An introduction to Hardy spaces on local fields. (81i:43015)
 Tripathi, L. M. (with Singh, A. P.) On $(N, 1/(n+1))$ summability of the conjugate derived Fourier series. (81f:42006)
 (with Singh, A. P.) On Nörlund summability of Fourier series and its conjugate series. (81c:42014)
 Verbitskii, I. E. Estimate of the norm of a function in a Hardy space in terms of the norms of its real and imaginary parts. (Russian) (81k:30046)
 Žuk, V. V. (with Natanson, G. I.) Constants in direct theorems of approximation theory. (Russian. English summary) (81i:42004)

42A55 Lacunary series of trigonometric and other functions; Riesz products

- Dudley, E. (with Hall, Peter) The Gaussian law and lacunary sets of characters. **81d:42018**
 Hall, Peter See Dudley, E., **81d:42018**
 Hawkes, John Probabilistic behaviour of some lacunary series. **81b:42012**
 Meyer, Yves Produits de Riesz généralisés. **81m:42011**

- Ovsepjan, R. I. Extraction of lacunary subsystems from general systems with a property of absolute convergence. (Russian) **81c:42026**
 Patadia, J. R. On lacunary Fourier series. **81b:42048**
 On the absolute convergence of a lacunary Fourier series. **81d:42019**
 Simonjan, A. S. Lacunary series and conjugate functions. (Russian) **81b:42049**

secondary classifications:

- Anderson, J. M. On a theorem of Rudin concerning the class A . (81d:30056)
 Berisa, M. See Potapov, M. K., (81c:42009)
 Cavaretta, Alfred S., Jr. (with Sharma, Ambikeshwar; Varga, Richard S.) Lacunary trigonometric interpolation on equidistant nodes. (81k:42004)
 Chen, Tian Ping On Varma's lacunary interpolation by splines. (Chinese. English summary) (81j:41002)
 Ébralidze, A. D. Multiple lacunary trigonometric series. (Russian. Georgian and English summaries) (81g:42014)
 MacLean, H. Alan Modifications of Fourier transforms and singular continuous measures. (81b:42022)
 Mural, Takafumi Une conjecture de Paley sur les séries de Taylor lacunaires. (English summary) (81j:30006)
 Potapov, M. K. (with Berisa, M.) Moduli of smoothness and the Fourier coefficients of periodic functions of one variable. (Russian) (81c:42009)
 Queffelec, Martine Mesures spectrales associées à certaines suites arithmétiques. (English summary) (81c:10071)
 Sur la singularité des produits de Riesz et des mesures spectrales associées à la somme des chiffres. (English summary) (81g:42073)
 Sharma, Ambikeshwar See Cavaretta, Alfred S., Jr.; et al., (81k:42004)
 Takahashi, Shigeru Almost sure invariance principles for lacunary trigonometric series. (81c:60041)
 Varga, Richard S. See Cavaretta, Alfred S., Jr.; et al., (81k:42004)

42A61 Probabilistic methods

secondary classifications:

- Brown, Gavin (with Hewitt, Edwin) Continuous singular measures with small Fourier-Stieltjes transforms. (81b:43007)
 Davis, Burgess Hardy spaces and rearrangements. (81b:42011)
 Dudley, E. (with Hall, Peter) The Gaussian law and lacunary sets of characters. (81d:42018)
 Hall, Peter See Dudley, E., (81d:42018)
 Hewitt, Edwin See Brown, Gavin, (81m:43007)
 Meyer, P. A. Correction à: "Démonstration probabiliste de certaines inégalités de Littlewood-Paley, IV" [Séminaire de Probabilités, X (Première partie, Univ. Strasbourg, Strasbourg, année universitaire 1974/1975), pp. 175-183, Lecture Notes in Math., 511, Springer, Berlin, 1976; MR 58 #18751e]. (81m:60147)

42A63 Uniqueness of trigonometric expansions, uniqueness of Fourier expansions, Riemann theory, localization

- Kelman, Robert B. Simple example of nonuniqueness for a dual trigonometric series. **81b:42050**
 Schroth, Peter On the summation problem of periodic functions. **81j:42025**

secondary classifications:

- Christensen, Jens Peter Reus (with Ressel, Paul) Functions operating on positive definite matrices and a theorem of Schoenberg. (81f:15031)
 Cooke, Roger L. The Cantor-Lebesgue theorem. (81b:42019)
 Graham, Colin C. (with McGehee, O. Carruth) ★Essays in commutative harmonic analysis. (81d:43001)
 McGehee, O. Carruth See Graham, Colin C., (81d:43001)
 Ressel, Paul See Christensen, Jens Peter Reus, (81f:15031)

42A65 Completeness of sets of functions

- Džirbajan, M. M. Representation and closure of some orthogonal systems. (Russian. Armenian and English summaries) **81j:42026**
 Gaposkin, V. F. Multiplicative completion of a trigonometric system to Cesàro bases. (Russian. Georgian and English summaries) **81d:42020**
 Germano, Bruna Construction of the particular systems of biorthonormal functions in $[0, +\infty)$, and conditions for their completeness in $L^p[0, +\infty)$. (Italian) **81j:42027**
 Krotov, V. G. Note on the convergence of Fourier series in the spaces L_p^s . **81c:42027**
 Martirozjan, V. A. Uniform approximations by quasipolynomials with integral coefficients. (Russian) **81c:42019**
 Zalik, R. A. On fundamental sequences of translates. **81d:42021**

secondary classifications:

- Leont'ev, A. F. ★Последовательности полиномов из экспонент. (Russian) [Sequences of polynomials of exponentials] (81m:30002)
 Lessard, Sabih Une double généralisation du théorème de Fejér-Lebesgue. (81k:47042)
 Schröck-Pauli, Claudia Über die Vollständigkeit und Freiheit von verallgemeinerten Fourier-Systemen. (81m:30004)

42A70 Trigonometric moment problems

- Geronimo, Jeffrey S. Szegő's theorem for Hankel determinants. **81j:42028**

42A75 Classical almost periodic functions, mean periodic functions [See also 43A60.]

- Berenstein, Carlos A. (with Taylor, B. A.) Mean-periodic functions. **81b:42014**
 Kadec, M. I. (with Kürsten, K. D.) Countability of the spectrum of weakly almost periodic functions with values in a Banach space. (Russian) **81d:42022**
 Kürsten, K. D. See Kadec, M. I., **81d:42022**
 Mamedov, G. A. Study of a constructive characteristic of a class of almost periodic functions. (Russian. Azerbaijani and English summaries) **81j:42029**
 Taylor, B. A. See Berenstein, Carlos A., **81b:42014**

secondary classifications:

- Diehrich, Richard Bounded functions with no spectral gaps. (**81h:42010**)
 Nagorev, B. M. See Nazarov, F., (**81h:43009**)
 Nazarov, F. (with Nagorev, B. M.) Some hereditary properties of almost periodic functions. (Russian. Tajiki summary) (**81h:43009**)
 Prather, Carl L. On the zeros of derivatives of balanced trigonometric polynomials. (**81j:42002**)
 Székelyhidi, L. Almost periodic functions and functional equations. (**81f:39010**)

42A82 Positive definite functions

secondary classifications:

- Ovčarenko, I. E. The expansion of Hermitian forms and operators. The problem of obtaining special integral representations of positive definite functions. III. (Russian) (**81m:47041**)

42A85 Convolution, factorization

secondary classifications:

- Inglis, Ian R. On a class of singular integrals and multipliers. (Italian. English summary) (**81m:42008**)
 Kecs, Wilhelm ★Produsul de convoluție și aplicații. (Romanian) [The convolution product and its applications] (**81c:46031**)
 Pathak, A. On convolution structure for conjugate Fourier series in a Banach space. (Hindi. English summary) (**81c:42018**)
 Pinkus, Allan On n -widths of periodic functions. (**81h:41030**)

42A99 None of the above, but in this section

- Baiada, Emilio (with Giampieretti, Enrica) Expansions in generalized trigonometric series. (Italian) **81b:42051**
 Belinskii, E. S. The asymptotic behavior of integral norms of trigonometric polynomials. (Russian) (See **80j:30003**)
 Carlsson, Leemart Some problems in harmonic analysis related to statistical mechanics. **81b:42052**
 Giampieretti, Enrica See Baiada, Emilio, **81b:42051**
 Hall, George L. Ewald evaluation and Poisson summation formulas for a class of near-Coulombic lattice sums. **81d:42023**
 Németh, J. Necessary and sufficient conditions for imbedding of classes of functions. **81h:42013**
 Pak, I. N. Asymptotic formulas for derivatives of sums of special trigonometric series. (Russian) **81h:42015**
 Trofimov, V. M. Upper bounds of moduli of smoothness on classes of differentiable functions in uniform and integral metrics. (Russian) **81a:42022**
 Young, Robert M. An elementary proof of a trigonometric identity. **81a:42023**

secondary classifications:

- Dym, Harry (with Gohberg, Israel) On an extension problem, generalized Fourier analysis, and an entropy formula. (**81g:42018**)
 Gohberg, Israel See Dym, Harry, (**81g:42018**)
 Janssen, A. J. E. M. ★Application of the Wigner distribution to harmonic analysis of generalized stochastic processes. (**81d:60045**)
 Stroock, Daniel W. Some remarks about Beckner's inequality. (**81d:26009**)

42Bxx Fourier analysis in several variables

42B05 Fourier series and coefficients

- Avetisjan, R. A. Sets of absolute convergence. (Russian) **81b:42053**
 Blacudze, M. G. Simple and multiple trigonometric series and series in the Walsh system with monotone coefficients. (Russian. Georgian and English summaries) **81h:42013**
 Ch'en, Chao Ti (with Huang, Ying Lung) Adjustment of functions for uniformly convergent multiple Fourier series. **81g:42013**
 Ebralidze, A. D. Multiple lacunary trigonometric series. (Russian. Georgian and English summaries) **81g:42014**
 Gahsoulja, O. D. The set of points of summability of double Fourier series. (Russian) **81d:42024**
 Gafarov, A. See Izrallova, M. M., **81b:42055**; Izrallova, M. M., **81b:42056** and Izrallova, M. M., **81h:42014**
 Golubov, B. I. A method of Abel-Poisson type summation of multiple Fourier series. (Russian) **81a:42024**
 Grigorjan, M. Z. Convergence of double series in the metric $L^p([0,1] \times [0,1])$, $0 < p < 1$. (Russian. Armenian summary) **81d:42054**
 Huang, Ying Lung See Ch'en, Chao Ti, **81g:42013**
 Izrallova, M. M. (with Gafarov, A.) The summation rate by the Riesz method of differentiated multiple conjugated trigonometric series for certain classes of functions.

(Russian. Tajiki summary) **81b:42055**

(with Gafarov, A.) Rates in the Riesz summability method for prodifferentiated double Fourier series of functions belonging to the classes $D_n^{\lambda, \mu}$ and $\Delta_n^{\lambda, \mu}$. (Russian. Tajiki summary) **81b:42056**

(with Gafarov, A.) The rate of summability by the Riesz method of multiple Fourier series of functions belonging to the class M_{μ} . (Russian. Tajiki summary) **81h:42014**

Kandil, M. A. Fourier series of multivariable vector-valued functions of strong bounded variation. (Arabic summary) **81c:42020**

Kohn, M. J. Symmetric derivatives defined by weighted spherical means. **81h:42015**

Konovalov, S. P. Absolute convergence of multiple Fourier series. (Russian) **81a:42025**
 On absolute convergence almost everywhere of multiple Fourier series. (Russian. English summary) **81h:42057**

Lifljand, I. R. Some questions of absolute convergence of multiple Fourier integrals. (Russian) **81c:42021**

La, Shan Zhen Spherical summability of multiple Fourier series and conjugate Fourier integrals. **81g:42015**

Maravić, Manojlo Riesz summability of multiple Fourier series. (Serbo-Croatian. French summary) **81b:42058**

Móricz, Ferenc (with Tandori, Károly) On the divergence of multiple orthogonal series. **81h:42016**

Nosenko, Ju. L. Comparison of linear methods of summation of double Fourier series. (Russian) (See **80j:30003**)

Conditions of Sidon type for integrability of double trigonometric series. (Russian) **81f:42013**

Oskienker, B. P. A weighted polynomial approximation by linear means of functions of several variables. (Russian) **81c:42022**

Podkorytov, A. N. The summation of multiple Fourier series over polyhedra. (Russian. English summary) **81d:42025**

Prohorov, V. I. Absolute convergence of double Fourier series of functions evenly or oddly extended. (Russian) **81b:42059**

Rubio de Francia, José L. On the convergence of double Fourier series. (Russian summary) **81a:42023**

Skopina, M. A. Asymptotic formulas for the deviation of linear summability methods for double Fourier series. (Russian) **81c:42028**

Stepanec', O. I. Estimates of deviations of partial Fourier sums on classes of continuous periodic functions of several variables. (Russian) **81h:42014**

Tandori, Károly See Móricz, Ferenc, **81h:42016**

Temjakov, V. N. Approximation of periodic functions of several variables with bounded mixed difference. (Russian) **81j:42030**

Trigub, R. M. Summability of multiple Fourier series. (Russian) **81c:42024**
 Summability of multiple Fourier series. Growth of Lebesgue constants. (Russian summary) **81j:42031**

Truk, N. N. Some properties of multidimensional kernels. (Russian) **81c:42025**

Vuković, Mirjana On an asymptotic relation between the spherical mean of higher order and the Riesz mean of multiple Fourier series. (Serbo-Croatian summary) **81j:42032**

Welland, Grant V. Absolute Abel summability and capacity. **81f:42014**

Zaderej, P. V. Approximation of conjugate functions of two variables by Fourier sums. (Russian) **81a:42026**

Convergence rate for Fourier partial sums on classes of continuous nonperiodic functions of two variables. (Russian) **81c:42026**

Žak, Ja. E. Some properties of absolutely convergent double trigonometric series. (Russian) **81g:42016**

Žizlavili, L. V. Integrability and continuity of conjugate functions of several variables. (Russian. Georgian and English summaries) **81g:42017**

Convergence of multiple trigonometric Fourier series and their conjugate trigonometric series in the spaces L and C . (Russian. Georgian and English summaries) **81m:42012**

secondary classifications:

Arhipov, G. I. (with Karacuba, A. A.; Čubarikov, V. N.) Multiple trigonometric sums and their applications. (Russian) (**81m:10071**)

Cooke, Roger L. The Cantor-Lebesgue theorem. (**81b:42019**)

Čubarikov, V. N. See Arhipov, G. I.; et al., (**81m:10071**)

Gatesoupe, Michel Problèmes de complémentation d'une famille de sous-algèbres fermées de $A(T^2)$. (**81m:46007**)

Problèmes de complémentation de sous-algèbres dans l'algèbre des séries de Fourier en deux variables absolument convergentes. (**81b:43003**)

Hoenders, B. J. On the inversion of an integral equation relating two wavefunctions in planes of an optical system suffering from an arbitrary number of aberrations. (**81g:78006**)

Karacuba, A. A. See Arhipov, G. I.; et al., (**81m:10071**)

Oskienker, B. P. Linear processes of approximation of functions of several variables. (Russian) (**81b:41008**)

Pimenova, L. M. Lebesgue functions for some interpolation polynomials in two variables. (Russian) (**81d:41008**)

Stepanec', O. I. See Zaderej, N. N., (**81h:42006**)

Stepanov, V. D. Absolute summability of the Fourier transform of functions of several variables. (Russian) (**81c:42028**)

Zaderej, N. N. (with Stepanec', O. I.) Approximation by Fourier sums on classes of periodic functions defined by polyharmonic operators. (Russian) (**81h:42006**)

42B10 Fourier and Fourier-Stieltjes transforms and other transforms of Fourier type

Belinskii, E. S. (with Lifljand, I. R.) Lebesgue constants and integrability of the Fourier transform of a radial function. (Russian. English summary) **81h:42016**

Ding, Zia Qi See Li, Cai Zhong, **81c:42027**

Din' Zang (with Timonov, V. M.) Inequalities for derivatives in the metric of \mathcal{E}_2 . (Russian. English summary) **81h:42017**

- Dym, Harry (with Gohberg, Israel) On an extension problem, generalized Fourier analysis, and an entropy formula. **81g:42018**
- Gadiliev, V. G. The Fourier transform of some classes of functions of an infinite number of variables. (Russian) **81m:42013**
- Gohberg, Israel See Dym, Harry, **81g:42018**
- Grigorjan, M. Z. Convergence of spherical Riesz means of multiple Fourier integrals. (Russian. Armenian summary) **81d:42026**
- Li, Cai Zhong (with Ding, Zia Qi) Embedding theorems for the space $L_p^0(E_n)$. (Chinese) **81c:42027**
- Lifland, I. R. Integrability of the Fourier transform of a compactly supported function and summability of Fourier series of functions of two variables. (Russian) (See **80j:30003**)
- Some conditions for the integrability of the Fourier transform. (Russian) **81b:42060**
- See also Belins'kii, È. S., **81c:42016**
- Moisejko, I. On absolute convergence of Fourier transform for functions of two variables. **81b:42061**
- Of'ianokii, V. P. (with Osadčenko, V. K.) Two-dimensional Fourier integrals containing Bessel functions. (Russian) **81f:42015**
- Osadčenko, V. K. See Of'ianokii, V. P., **81f:42015**
- Omanov, G. I. Uniform Riesz summability of the Fourier integral on the plane. (Russian) **81d:42027**
- Paczala, Andrzej Analogue of the Fourier transform in the space $L_1(-\infty, \infty, B)$. (Polish. Russian and French summaries) **81c:42029a**
- Analogue of the generalized Fourier transform in the space $L_2(-\infty, \infty, H)$. (Polish. Russian and French summaries) **81c:42029b**
- Persson, Lars-Erik On a weak-type theorem with applications. **81b:42062**
- Prentiss, Elena Restriction theorems for the Fourier transform to some manifolds in \mathbb{R}^n . **81d:42028**
- Stepanov, V. D. Absolute summability of the Fourier transform of functions of several variables. (Russian) **81c:42028**
- Thomirov, V. M. See Din' Zang, **81h:42017**
- Tomas, Peter A. Restriction theorems for the Fourier transform. **81d:42029**

secondary classifications:

- Colfman, Ronald R. (with Meyer, Yves) Fourier analysis of multilinear convolutions, Calderón's theorem, and analysis of Lipschitz curves. (**81g:42021**)
- Embrechts, Paul A characterization of Fourier-Stieltjes transforms. (**81m:43009**)
- Furutsu, K. Diffusion equation derived from space-time transport equation. (**81h:78021a**)
- See also Ito, S., (**81h:78021b**)
- Ito, S. (with Furutsu, K.) Theory of light pulse propagation through thick clouds. (**81h:78021b**)
- Johnson, G. W. (with Skoug, D. L.) An L_p analytic Fourier-Feynman transform. (**81a:46050**)
- Kanai, Yakur Local analyticity of Fourier transforms. (**81k:46047**)
- Meyer, Yves See Colfman, Ronald R., (**81g:42021**)
- Osipov, Ju. V. p -adic Fourier transform. (Russian) (**81b:12021**)
- Skoug, D. L. See Johnson, G. W., (**81a:46050**)
- Struble, Raymond A. Operational rules. (**81f:44003**)
- Uglava, D. K. On the saturation problem in the space $L_p(\mathbb{R}^n)$, $1 < p < 2$. (Russian) (**81b:41057**)
- Wong, R. Distributional derivation of an asymptotic expansion. (**81j:46066**)
- Zadereš, P. V. Approximation of periodic functions of several variables by positive polynomial operators. (Russian) (**81c:41048**)

42B15 Multipliers

- Belins'kii, È. S. Some properties of hyperbolic partial sums. (Russian) **81f:42016**
- Córdoba, Antonio Maximal functions, covering lemmas and Fourier multipliers. **81f:42017**
- Multipliers of $\mathcal{S}(L^p)$. **81h:42018**
- Translation invariant operators. **81m:42014**
- Harboure de Aguilera, Eleonor Bounded multipliers noncontinuous on L^p , $p \neq 2$. (Russian summary) **81j:42033**
- Kenig, Carlos E. (with Tomas, Peter A.) On conjectures of Riviere and Strichartz. **81g:42019**
- Knopf, Peter M. Weak-type multipliers. **81m:42015**
- Mamedov, R. G. (with Velsov, I. A.) Some theorems on functional multipliers for Fourier and Laplace transforms. (Russian) (See **80d:00021**)
- Miyachi, Akihiko On some Fourier multipliers for $H^p(\mathbb{R}^n)$. **81g:42020**
- Podkorytov, A. N. Iterations of polynomial operators in the multidimensional case. (Russian. English summary) **81b:42063**
- Sjölin, Per An H^p inequality for strongly singular integrals. **81d:42030**
- Tomas, Peter A. A note on restriction. **81f:42018**
- See also Kenig, Carlos E., **81g:42019**
- Velsov, I. A. See Mamedov, R. G., (See **80d:00021**)

secondary classifications:

- Colfman, Ronald R. (with Meyer, Yves) Fourier analysis of multilinear convolutions, Calderón's theorem, and analysis of Lipschitz curves. (**81g:42021**)
- Cotlar, Mischa (with Sadosky, Cora) Characterization of two measures satisfying the Riesz inequality for the Hilbert transform in L^2 . (Spanish summary) (**81d:44004**)
- Cowling, Michael An application of Littlewood-Paley theory in harmonic analysis. (**81g:43003**)
- Gasper, George (with Trebels, Walter) A characterization of localized Bessel potential spaces and applications to Jacobi and Hankel multipliers. (**81k:46030**)
- Marić, Manojlo Riesz summability of multiple Fourier series. (Serbo-Croatian. French summary) (**81b:42058**)

- McKennon, Kelly Sobolev multipliers. (**81m:47043**)
- Martens, H. J. (with Nessel, Rolf Joachim) Über Multiplikatoren starker Konvergenz für Fourier-Entwicklungen in Banach-Räumen. (**81a:42018**)
- Meyer, Yves See Colfman, Ronald R., (**81g:42021**)
- Nessel, Rolf Joachim (with Wilmes, Gerhard) ★Über Ungleichungen vom Bernstein-Nikol'skii-Riesz-Typ in Banach Räumen. (German) [On inequalities of the Bernstein-Nikol'skii-Riesz type in Banach spaces] (**81b:41032**)
- See also Martens, H. J., (**81a:42018**)
- Okada, Masami Intégrales de volume et fonction maximale pour les fonctions plurisousharmoniques dans la boule. (English summary) (**81c:32039**)
- Sadosky, Cora See Cotlar, Mischa, (**81d:44004**)
- Stöckert, Bernd Ungleichungen vom Plancherel-Pólya-Nikol'skii-Typ in gewichteten L^p -Räumen mit gemischten Normen. (**81c:46022a**)
- Multiplikatoren in gewichteten anisotropen L^p -Räumen ganzer analytischer Funktionen exponentiellen Typs. (**81c:46022b**)
- Trebels, Walter See Gasper, George, (**81k:46030**)
- Triebel, Hans A multiplier in Besov spaces which is not a multiplier in Lebesgue spaces. (**81d:46036**)
- Wilmes, Gerhard See Nessel, Rolf Joachim, (**81b:41032**)

42B20 Singular integrals (Calderón-Zygmund, etc.)

- Abdullaev, S. K. (with Norov, K.) A multidimensional singular integral in an infinite domain with a border. (Russian. Tajiki summary) **81f:42019**
- Aguilera, N. E. (with Harboure, E. O.) Some inequalities for maximal operators. **81k:42015**
- Baba-Zade, M. A. (with Guseinov, E. G.) Singular Cauchy operator along an open contour in Zygmund classes. (Russian) **81b:42064**
- Bocorivill, M. A. The Riesz transform in the space E^n ($n \geq 2$). (Russian) **81b:42065**
- Calderón, Calisto P. On a singular integral. **81f:42020**
- On a condition of Marcinkiewicz and convergence of singular integrals. **81m:42016**
- Smooth functions and convergence of singular integrals. II. **81k:42016**
- Colfman, Ronald R. (with Meyer, Yves) Fourier analysis of multilinear convolutions, Calderón's theorem, and analysis of Lipschitz curves. **81g:42021**
- De-Michele, Leonede (with Inglis, Ian R.) L^p estimates for strongly singular integrals on spaces of homogeneous type. **81k:42017**
- Fefferman, Robert A. A theory of entropy in Fourier analysis. **81g:42022**
- Guseinov, E. G. See Baba-Zade, M. A., **81b:42064**
- Harboure, E. O. See Aguilera, N. E., **81k:42015**
- Inglis, Ian R. See De-Michele, Leonede, **81k:42017**
- Khanh, Bui Doan Intégrales singulières, commutateurs, et la fonction f^s . (English summary) **81j:42034**
- Kokilavilli, V. M. Weighted inequalities for singular integrals with a Cauchy kernel on smooth contours. (Russian. Georgian and English summaries) **81b:42066**
- Meyer, Yves See Colfman, Ronald R., **81g:42021**
- Nguyen Xuan Uy An extremal problem on singular integrals. **81j:42035**
- Norov, K. See Abdullaev, S. K., **81f:42019**
- Strömberg, Jan Olov Bounded mean oscillation with Orlicz norms and duality of Hardy spaces. **81f:42021**
- Tomčič, Miloi Approximation of a wedge of 2π -periodic functions by singular integrals. (Russian) **81j:42017**

secondary classifications:

- Ash, J. Marshall (with Ash, P. F.; Fefferman, Charles; Jones, R. L.) Singular integral operators with complex homogeneity. (**81f:42011**)
- Ash, P. F. See Ash, J. Marshall; et al., (**81f:42011**)
- Colfman, Ronald R. (with Meyer, Yves) ★Au delà des opérateurs pseudo-différentiels. (French) [Beyond pseudodifferential operators] (**81b:47061**)
- (with Meyer, Yves) Commutators of singular integrals. (**81d:42016**)
- Córdoba, Antonio Maximal functions, covering lemmas and Fourier multipliers. (**81f:42017**)
- Translation invariant operators. (**81m:42014**)
- Cotlar, Mischa (with Sadosky, Cora) On the Helson-Szegő theorem and a related class of modified Toeplitz kernels. (**81j:42022**)
- Duggal, B. P. (with Kapur, M. L.) On weighted fractional integrals. (**81b:26006**)
- Fabes, E. B. (with Riviere, N. M.) Dirichlet and Neumann problems for the heat equation in C^1 -cylinders. (**81b:35044**)
- Fefferman, Charles See Ash, J. Marshall; et al., (**81f:42011**)
- Gadiliev, A. D. The connection between symbol and characteristic of a multidimensional singular integral operator in the spaces L_p . (Russian) (**81g:47032**)
- Gilbert, John E. Nikitin-Stein theory and factorization with applications. (**81g:42023**)
- Jones, R. L. See Ash, J. Marshall; et al., (**81f:42011**)
- Kapur, M. L. See Duggal, B. P., (**81b:26006**)
- Kaufman, Robert P. Zero sets of absolutely convergent Taylor series. (**81b:30003**)
- Kurtz, Douglas S. (with Wheeden, Richard L.) Results on weighted norm inequalities for multipliers. (**81j:42021**)
- Meyer, Yves See Colfman, Ronald R., (**81b:47061**) and Colfman, Ronald R., (**81d:42016**)
- Riviere, N. M. See Fabes, E. B., (**81b:35044**)
- Sadosky, Cora See Cotlar, Mischa, (**81j:42022**)
- Wheeden, Richard L. See Kurtz, Douglas S., (**81j:42021**)

42B25 Maximal functions, Littlewood-Paley theory

- Aguilera, N. E. Maximal operators associated to radial functions in $L^2(\mathbb{R}^2)$. **81j:42036**
- Alvarez, Hugo See Zó, Felipe, **81k:42018**
- Barker, S. R. An inequality for measures on a half-space. **81j:42037**
- Colfman, Ronald R. (with Rochberg, R.) Another characterization of BMO. **81b:42067**
- Duff, G. F. D. The variation of a maximal function. **81k:42018**

Dzhrbajjan, A. É. Weighted norm estimate for the function g_p . (Russian. Armenian and English summaries) **81j:42038**

Gilbert, John E. Nikishin-Stein theory and factorization with applications. **81g:42023**

de Guzmán, Miguel Real function methods in Fourier analysis. **81h:42068**

Hartman, S. (with Meyer, Yves) Interpolation harmonique sur les compacts. **81h:42019**

Kokilashvili, V. M. Maximal functions in weighted spaces. (Russian) **81m:42017**

Koosis, Paul Sommabilité de la fonction maximale et appartenance à H_1 . (English summary) **81e:42030**

Lukatsenka, T. P. Majorants of D -integrable functions. (Russian) **81b:42069**

Madych, W. R. Distributions with strong maximal functions in $L^p(\mathbb{R}^n)$. **81d:42031**

Meyer, Yves See Hartman, S., **81h:42019**

Nagel, Alexander (with Stein, Elias M.; Wainger, Stephen) Hilbert transforms and maximal functions related to variable curves. **81a:42027**

Neugebauer, C. J. On the Hardy-Littlewood maximal function and some applications. **81j:42039**

Radzibov, É. L. Some properties of hypersingular integrals with singularity of arbitrary order. (Russian. Tajiki summary) **81m:42018**

Rochberg, R. See Coifman, Ronald R., **81d:42067**

Rubio, Baldomero The maximal function and derivation of integrals in a space of locally integrable functions. **81i:42019**

Rubio de Francia, José L. Vector-valued inequalities for operators in L^p -spaces. **81g:42024**

Samko, S. G. Hypersingular integrals with homogeneous characteristics. (Russian. Georgian and English summaries) **81a:42028**

Stein, Elias M. See Nagel, Alexander; et al., **81a:42027**

Wainger, Stephen See Nagel, Alexander; et al., **81a:42027**

Zá, Felipe (with Alvarez, Hugo) Weak estimates for the parabolic Hardy-Littlewood maximal function through unbounded sets in \mathbb{R}^n . **81k:42018**

secondary classifications:

Aguilera, N. E. (with Harboure, E. O.) Some inequalities for maximal operators. **(81k:42015)**

Assouad, Patrice Plongements lipschitziens dans \mathbb{R}^n et courbes de Von Koch. (English summary) **(81f:60055)**

Connett, William C. (with Schwartz, Alan L.) The Littlewood-Paley theory for Jacobi expansions. **(81g:42027)**

Córdoba, Antonio Maximal functions, covering lemmas and Fourier multipliers. **(81f:42017)**

Multipliers of $\mathcal{S}'(L^p)$. **(81h:42018)**

Maximal functions: a problem of A. Zygmund. **(81k:28005)**

Translation invariant operators. **(81m:42014)**

Fefferman, Robert A. A theory of entropy in Fourier analysis. **(81g:42022)**

Gundy, Richard F. Maximal function characterization of H^p for the bidisc. **(81h:32008)**

Harboure, E. O. See Aguilera, N. E., **(81k:42015)**

Kapanadze, Dž. V. Harmonic functions and maximal operators. (Russian) **(81c:31013)**

Okada, Masami Intégrales de volume et fonction maximale pour les fonctions plurisousharmoniques dans la boule. (English summary) **(81k:31013)**

Persson, Lars-Erik On a weak-type theorem with applications. **(81b:42062)**

Schwartz, Alan L. See Connett, William C., **(81g:42027)**

Strömberg, Jan Olov (with Torchinsky, Alberto) Weights, sharp maximal functions and Hardy spaces. **(81i:42021)**

Torchinsky, Alberto See Strömberg, Jan Olov, **(81i:42021)**

Wang, Hual Ch'uan A note on Segal algebras on Euclidean spaces. **(81d:43005)**

42B30 H^p -spaces

Bennett, Colin (with Rudnick, Karl) On Lorentz-Zygmund spaces. **81i:42020**

Fujii, Nobuhiko A maximal inequality for H^1 -functions on a generalized Walsh-Paley group. **81b:42070**

Garnett, John B. Two constructions in BMO. **81k:42019**

Macías, Roberto A. (with Segovia, Carlos) Singular integrals on generalized Lipschitz and Hardy spaces. **81e:42031**

Németh, J. On imbedding theorems. **81b:42071**

Petersen, Karl A construction of ergodic BMO functions. **81k:42020**

Rudnick, Karl See Bennett, Colin, **81i:42020**

Segovia, Carlos See Macías, Roberto A., **81e:42031**

Strömberg, Jan Olov (with Torchinsky, Alberto) Weights, sharp maximal functions and Hardy spaces. **81i:42021**

Torchinsky, Alberto See Strömberg, Jan Olov, **81i:42021**

Uchiyama, Akihito A remark on Carleson's characterization of BMO. **81k:42021**

secondary classifications:

Amar, Éric Extension de fonctions analytiques avec estimation. **(81a:46029)**

Bartolomé, Paolo (with Landucci, Mario) Régularisation au bord et problème de Cauchy pour l'opérateur $\bar{\partial}$ à croissance de "type Hardy". **(81c:32013)**

Coifman, Ronald R. (with Rochberg, R.) Another characterization of BMO. **(81b:42067)**

Davis, Burgess Hardy spaces and rearrangements. **(81h:42011)**

Fefferman, Robert A. Bounded mean oscillation on the polydisk. **(81c:32016)**

García-Cuerva, José Weighted Hardy spaces. **(81f:30032)**

Garnett, John B. Two constructions in BMO. **(81d:30058)**

Geller, Daryl Some results in H^p theory for the Heisenberg group. **(81j:32009)**

Kenig, Carlos E. Weighted Hardy spaces on Lipschitz domains. **(81h:30038)**

Weighted H^p spaces on Lipschitz domains. **(81d:30060)**

Koosis, Paul ★Introduction to H_p spaces. **(81c:30062)**

Landucci, Mario See de Bartolomé, Paolo, **(81c:32013)**

Macías, Roberto A. (with Segovia, Carlos) Lipschitz functions on spaces of

homogeneous type. **(81c:32017a)**

(with Segovia, Carlos) A decomposition into atoms of distributions on spaces of homogeneous type. **(81c:32017b)**

Madych, W. R. Distributions with strong maximal functions in $L^p(\mathbb{R}^n)$. **(81d:42031)**

Mizuta, Yoshihiro Existence of nontangential limits of solutions of nonlinear Laplace equation. **(81f:35045)**

Ostrovčik, L. A. Asymptotic equalities in approximating functions of H^p classes by the de la Vallée Poussin sums. (Russian. English summary) **(81c:41046)**

Rochberg, R. See Coifman, Ronald R., **(81b:42067)**

Schemp, Walter Approximations in the Hardy space $H^1(D)$ with respect to the norm topology. **(81j:30053)**

Segovia, Carlos See Macías, Roberto A., **(81c:32017a)** and Macías, Roberto A., **(81c:32017b)**

Sjölin, Per An H^p inequality for strongly singular integrals. **(81d:42030)**

Storozhenko, É. A. Theorems of Jackson type in H^p , $0 < p < 1$. (Russian) **(81k:42003)**

Taibleson, Mitchell H. (with Weiss, Guido) The molecular characterization of Hardy spaces. **(81i:42013)**

Temirgaliev, N. Embedding in some Lorentz spaces. (Russian) **(81j:46043)**

Weiss, Guido See Taibleson, Mitchell H., **(81i:42013)**

42B99 None of the above, but in this section

Baĭborodov, S. P. Approximation of functions of several variables by rectangular de la Vallée Poussin sums. (Russian) **81c:42029**

Jones, P. W. Structure of A_p weights. **81i:42022**

Lu, Shan Zhen Convergence of spherical Riesz means of multiple Fourier series. (Chinese) **81m:42019**

Nikol'skaja, N. S. Approximation of functions of several variables of the classes SL_p^r by Fourier sums. (Russian) **81b:42072**

secondary classifications:

Sadosky, Cora ★Interpolation of operators and singular integrals. **(81d:42001)**

(Suvorov, G. D.) See Theory of functions and mappings, **(81b:30002)**

Mappings ★Теория функций и отображений. (Russian) [Theory of functions and mappings] **(81b:30002)**

Theory of functions and mappings ★Теория функций и отображений. (Russian) [Theory of functions and mappings] **(81b:30002)**

42Cxx Nontrigonometric Fourier analysis

42C05 Orthogonal functions and polynomials, general theory [See also 33A65.]

Alfaro García, Manuel The multiplication operator in the theory of orthogonal polynomials on the unit circle. (Spanish) **81m:42020**

Bicadze, M. G. General orthogonal series. (Russian. Georgian and English summaries) **81j:42040**

Bojadiev, L. I. Asymptotic formula for a function of the second kind corresponding to a system of orthonormal polynomials on two finite intervals. (Russian) **81d:42032**

Case, K. M. Inverse scattering, orthogonal polynomials, and linear estimation. **81i:42023**

Chihara, T. S. On generalized Stieltjes-Wigert and related orthogonal polynomials. **81i:42024**

Orthogonal polynomials whose distribution functions have finite point spectra. **81e:42032**

Geronimo, Jeffrey S. A relation between the coefficients in the recurrence formula and the spectral function for orthogonal polynomials. **81i:42025**

Golinskii, B. L. The relation between the order of decrease of parameters of orthogonal polynomials and properties of the corresponding distribution function. (Russian. Armenian and English summaries) **81j:42041**

Asymptotic representation of orthogonal polynomials. (Russian) **81e:42033**

Jain, V. K. On orthogonal polynomials of two variables. **81c:42030**

Kalugin, V. A. A class of polynomials determined by two orthogonality relations. (Russian) **81c:42031**

Krancberg, A. S. Systems of convergence in C and bases in L . (Russian) **81a:42029**

Leindler, L. On the strong summability and approximation of orthogonal series. **81b:42073**

Magnus, Alphonse Recurrence coefficients for orthogonal polynomials on connected and nonconnected sets. **81e:42034**

Neval, Paul G. On orthogonal polynomials. **81e:42032**

On an extremal problem. **81e:42035**

Rahmanov, E. A. Steklov's conjecture in the theory of orthogonal polynomials. (Russian) **81j:42042**

Stur, A. H. P. Two complete systems of algebraic orthogonal functions over $(-\infty, +\infty)$. **81b:42074**

Tandori, Károly Bemerkung zur Konvergenz der Funktionenreihen. **81b:42075**

Gewisse Abschätzungen über beschränkte orthonormierte Systeme. **81c:42033**

Totik, V. On the very strong and mixed approximations. **81b:42076**

Ullman, J. L. Orthogonal polynomials associated with an infinite interval. **81j:42043**

secondary classifications:

Arioka, Shigekatsu See Ogawa, Shirō; et al., **(81k:65028)**

Blankenagel, Jürgen Zur Charakterisierung von Orthogonalpolynomen in zwei Veränderlichen. (English and Russian summaries) **(81g:33004)**

Kida, Sōsaburō See Ogawa, Shirō; et al., **(81k:65028)**

Ogawa, Shirō (with Arioka, Shigekatsu; Kida, Sōsaburō) On orthogonal polynomials in two variables and Gaussian cubature formulas. **(81k:65028)**

Ostlenker, B. P. A weighted polynomial approximation by linear means of functions of several variables. (Russian) **(81c:42022)**

Ryakov, V. O. An orthonormal system on the basis of the function $\mu_p(x)$. (Russian) **(81a:42008)**

Stahl, H. Orthogonal polynomials of complex-valued measures and the convergence of Padé approximants. **(81i:41016)**

- Urwu, Kathalea M. Note on a class of orthogonal bipoynomials. (Romanian summary) (81a:33020)
 Vértess, P. Note on mean convergence of Lagrange parabolas. (81c:41011)

42C10 Fourier series in special orthogonal functions (Legendre polynomials, Walsh functions, etc.)

- Agrawal, S. R. (with Patel, C. M.) On the convergence of Fourier-Bessel series. 81f:42022
 Beohar, B. K. (with Jadia, B. L.) On the absolute Nörlund summability of Laguerre series. 81b:42086
 A generalization of a theorem of du Plessis on the convergence of Laplace series. 81b:42077
 (with Jadia, B. L.) Degree of approximation by Cesàro mean of Fourier-Laguerre series. 81i:42026
 (with Mishra, K. K.) On Nörlund summability of Jacobi series. (Hindi. English summary) 81f:42023
 Beohar, R. K. (with Jadia, B. L.) On summation of Laguerre series by Riesz logarithmic means. 81c:42034
 Bhatt, S. N. On the absolute summability of a Laplace series by Nörlund means. 81g:42025
 Bingham, Nicholas H. Integrability theorems for Jacobi series. 81j:42044
 Bočkar, S. V. A method of averaging in the theory of orthogonal series and some problems in the theory of bases. 81m:42021
 Borell, Christer On the integrability of Banach space valued Walsh polynomials. 81c:42026
 Boyd, John P. The rate of convergence of Hermite function series. 81h:42020
 Brass, Helmut Approximation durch Teilsummen von Orthogonalpolynomreihen. (English summary) 81c:42036
 Chandra, Prem (with Sharma, M. M.) Criteria for the absolute convergence of Legendre series. 81c:42035
 (with Sharma, M. M.) On the absolute Riesz summability of Legendre series. 81c:42037a
 (with Sharma, M. M.) Corrigendum to: "On the absolute Riesz summability of Legendre series". 81c:42037b
 Connell, William C. (with Schwartz, Alan L.) The Littlewood-Paley theory for Jacobi expansions. 81g:42027
 Cybertowicz, Zofia Some results concerning double Walsh system. 81c:42036
 Ehrlich, A. D. Fourier-Haar coefficients of continuously differentiable functions. (Russian. Georgian and English summaries) 81b:42078
 Efimov, A. V. (with Zolotareva, S. Ju.) Multiplicative Fourier integral and its discrete analogues. (Russian. English summary) 81j:42045
 Gasper, George (with Trebels, Walter) Multiplier criteria of Hörmander type for Fourier series and applications to Jacobi series and Hankel transforms. 81j:42046
 Gieske, Hans-Jürgen Über die Konstruktion von Faltungen für Integraltransformationen mit orthogonalen Polynomen als Kern. (Russian and English summaries) 81b:42021
 Goetgheluck, Pierre Approximation sur la demi-droite des fonctions C^∞ à décroissance rapide dans les espaces L^p avec poids. 81c:42027
 Görlch, E. (with Markett, C.) On approximation by Cesàro means of the Laguerre expansion and best approximation. 81f:42024
 Gul'kev, N. V. Estimates of norms of Fourier-Walsh sums. (Russian) 81b:42079
 Correction of functions up to absolutely convergent Fourier series. (Russian. English summary) 81f:42025
 Hočolava, V. V. Absence of localization for summation by the method (C, α) , $0 < \alpha < \frac{1}{2}$, of a Fourier-Laplace series in the Nikol'skii class $H_p^s(S^3)$. (Russian. Georgian and English summaries) 81b:42080
 (Strong summability of Fourier-Laplace series of functions of the class $L_p(S^4)$, $p > 1$. (Russian. Georgian and English summaries) 81j:42047
 Jacob, Mathias (with Offord, Cyril) Les fonctions aléatoires dans le disque unité. (English summary) 81c:42028
 Jadia, B. L. See Beohar, B. K., 81b:42086; Beohar, R. K., 81c:42034 and Beohar, B. K., 81c:42026
 Kangro, G. The strong summability of orthogonal series with speed. (Russian. English and Estonian summaries) 81i:42029
 Kipiani, T. G. The approximation order of functions of several variables by the Fourier-Bessel series. (Russian. Georgian and English summaries) 81a:42030
 Lee, P. A. Probabilistic derivation of a bilinear summation formula for the Meixner-Pollaczek polynomials. 81m:42022
 Levin, S. V. Some properties of a Walsh system. (Russian) 81g:42028
 Lorch, E. (with Tzimbalario, Jean) Quasi-equivalence between Borel summability and convergence for Fourier-Laguerre series at the end-point. 81c:42037
 Lukatsenko, S. Ju. The structure of sets of divergence of trigonometric and Walsh series. (Russian) 81b:42022
 Mamedov, E. N. Linear averages of Fourier-Gegenbauer series of functions of L^p classes. (Russian. English summary) 81b:42081
 Markett, C. See Görlch, E., 81f:42024
 (McFaden, H. H.) See Bočkar, S. V., 81m:42021
 Miheev, I. M. Lacunary subsystems of a system of Walsh functions. (Russian) 81c:42022
 Mishra, K. K. See Beohar, B. K., 81f:42023
 Móricz, Ferenc (with Révész, Pál) Multiplicative systems. (Hungarian) 81m:42023
 Nakata, Saburō On the unconditional convergence of Walsh series. (Russian summary) 81j:42048
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 Pogosjan, N. B. Summability of Haar-Walsh series to $+\infty$. (Russian) 81f:42026
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 See also Shrivastava, K. K., 81b:42082
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 Simon, P. On the concept of a conjugate function. 81b:42084
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 Singh, Tikam On the partial sums of the series of Laguerre polynomials. 81c:42039
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 Skvorcov, V. A. Walsh series that are convergent with respect to subsequences of partial sums. (Russian) 81j:42049
 Spletstösser, W. (with Wagner, Heinz-Josef) Eine dyadische Infinitesimalrechnung für Haar-Funktionen. (English and Russian summaries) 81h:42024
 Su, Wei Yi On an extremum problem for n -variable Walsh transforms. (Chinese. English summary) 81j:42050
 Suhorol'skii, M. A. See Peleh, B. L., 81d:42033
 Tkebuchava, G. E. On unconditional convergence of Haar series. 81b:42087
 Trebels, Walter See Gasper, George, 81j:42046
 Trimbalario, Jean See Lorch, E., 81c:42037
 Ulanov, P. L. Fourier coefficients. (Russian) 81b:42088
 Wade, William R. Uniqueness of Walsh series which satisfy an averaged growth condition. 81m:42025
 Wagner, Heinz-Josef See Spletstösser, W., 81h:42024
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 Zolotareva, S. Ju. See Efimov, A. V., 81j:42045

secondary classifications:

- Alfaro García, Manuel Expansion in Fourier-Toeplitz series in $1/z^k$. (Spanish. English summary) (81b:30004)
 Bahicjan, A. V. On permutations of the Walsh system. (Russian. Armenian summary) (81c:42039)
 Beohar, B. K. (with Sharma, K. G.) On Nörlund summability of Jacobi series. (81j:40013)
 Bicazde, M. G. Simple and multiple trigonometric series and series in the Walsh system with monotone coefficients. (Russian. Georgian and English summaries) (81b:42013)
 Bourgain, Jean Sous-espaces L^p invariants par translations sur le groupe de Cantor. (English summary) (81b:46031)
 Ch'en, Chao Ti On divergence of Vilenkin-Fourier series. (81c:42008)
 Chen, Tian Ping Approximating continuous functions by Haar series. (Chinese) (81j:41031)
 Ciesielski, Z. Equivalence, unconditionality and convergence a.e. of the spline bases in L_p spaces. (81j:41014)
 Forte, F. See Lyle, W. D., Jr., (81c:44004)
 Fujii, Nobuhiko A maximal inequality for H^1 -functions on a generalized Walsh-Paley group. (81b:42070)
 Gasper, George (with Trebels, Walter) Multipliers and Parseval type formulas for Jacobi series. (81c:42016)
 Lyle, W. D., Jr. (with Forte, F.) A useful property of the coefficients of a Walsh-Hadamard transform. (81c:44004)
 Pitts, C. G. C. On the divergence in r th mean of a class of eigenfunction expansions. (81c:34013)
 Rafalson, S. Z. The analogue of a theorem of A. Zygmund for Legendre polynomials. (Russian) (81a:33016)
 Repela, Stanislaw Properties of bounded orthogonal spline bases. (81b:41021)
 Rytchenko, N. D. Approximation of functions of several variables by Walsh-Paley polynomials. (Russian) (81d:41027)
 Sharma, K. G. See Beohar, B. K., (81j:40013)
 Sjöberg, Lars A recurrence relation for the β_n -function. (81c:86002)
 Stanton, Dennis A short proof of a generating function for Jacobi polynomials. (81c:33016)
 Stur, A. H. P. Two complete systems of algebraic orthogonal functions over $(-\infty, +\infty)$. (81b:42074)
 Trebels, Walter See Gasper, George, (81c:42016)
 Wade, William R. $H^{(\infty)}$ -sets for the group of integers of a p -series field. (81c:42033)
 Sets of uniqueness for the group of integers of a p -series field. (81d:43008)

42C15 Series of general orthogonal functions, generalized Fourier expansions, nonorthogonal expansions

- Aliev, B. Estimation of the regularization method for the problem of the summability of the Fourier series. (Russian) 81d:42035
 Badkov, V. M. Asymptotic behavior of orthogonal polynomials. (Russian) 81k:42024
 Approximation of functions in a uniform metric by Fourier sums in orthogonal polynomials. (Russian) 81c:42038
 Bočkar, S. V. The averaging method in the theory of orthogonal series. (Russian) 81d:42036
 Gajewski, Ryszard On strong approximation by Abel means of orthogonal series. 81f:42027

- Gapolkina, V. F. On the growth order of partial sums of nonorthogonal series. (Russian summary) **81b:42025**
- Joó, István Note to a theorem of Talalian on universal series and to a problem of Nikitin. **81b:42025**
- Kamlovskaja, I. Ju. Approximation of functions of class H_∞ by modified Rogozinskii polynomials. (Russian) **81b:42090**
- Kalin, B. S. General orthonormal systems and some questions of approximation theory. (Russian) **81b:42026**
- Oštrov, M. N. Summation of orthogonal series by the Riesz method. (Russian) **81m:42026**
- Patel, C. M. See Patel, R. K., **81d:42037**
- Patel, R. K. (with Patel, C. M.) Summability of orthogonal series by Euler method. **81d:42037**
- Serov, V. S. Convergence of spectral expansions in generalized Besov classes. (Russian) **81f:42028**
- Tandori, Károly On the Lebesgue functions. **81i:42030**
Bemerkung zu einem Satz von S. Kaczmarz. **81i:42031**
Über einen Satz von Alexits und Sharma. **81i:42032**
- Zinn, O. A. Summation of orthogonal series by (φ, λ) methods. (Russian) **81b:42091**

secondary classifications:

- Agrawal, R. K. See Goyal, S. P., **(81i:33008)**
- Boltov, N. S. Convolutions and multipliers connected with generalized eigenvector expansions. **(81b:47016)**
- Chihara, T. S. On generalized Stieltjes-Wigert and related orthogonal polynomials. **(81i:42024)**
- Goyal, S. P. (with Agrawal, R. K.) A two-dimensional Neumann expansion for the H -function of two variables. **(81i:33006)**
- Ilin, V. A. Approximation of functions by bi-orthogonal series in the eigen- and associated functions of differential operators. (Russian) **(81f:47047)**
- Oscini, Alessandro (with Rosati, Francesco) Comparison theorems for the zeros of s -orthogonal polynomials. (Italian. French summary) **(81m:33009)**
- Rosati, Francesco See Oscini, Alessandro, **(81m:33009)**
- Rosenblum, Marvin (with Rovnyak, James) Change of variables formulas with Cayley inner functions. **(81d:30053)**
- Rovnyak, James See Rosenblum, Marvin, **(81d:30053)**
- Shaw, J. K. On the oscillatory behavior of singular Sturm-Liouville expansions. **(81b:34026)**
- Tandori, Károly Gewisse Abschätzungen über beschränkte orthonormierte Systeme. **(81c:42033)**
On a problem of B. I. Golubov. (Russian summary) **(81b:40009)**
- Turnpu, H. A class of transformations of summability systems. (Russian. Estonian and English summaries) **(81e:40011)**
- Ufjanov, P. L. Fourier coefficients. (Russian) **(81b:42088)**
- Zelilavili, L. V. Summability by the Cesàro method of negative order of multiple orthogonal series. (Russian. Georgian and English summaries) **(81j:40014)**

42C20 Rearrangements and other transformations of Fourier and other orthogonal series

- Babiejcan, A. V. On permutations of the Walsh system. (Russian. Armenian summary) **81c:42039**
- Bočkarov, S. V. Rearrangements of Fourier-Walsh series. (Russian) **81b:42092**
- Gelliašvili, A. B. Behavior of Fourier coefficients of equimeasurable functions. (Russian) **81b:42026**

secondary classifications:

- Bicadre, M. G. General orthogonal series. (Russian. Georgian and English summaries) **(81j:42040)**
- Gasper, George (with Trebels, Walter) Multiplier criteria of Hörmänder type for Fourier series and applications to Jacobi series and Hankel transforms. **(81j:42046)**
- Lazard, C. See Lazard, D., **(81a:10014)**
- Lazard, D. (with Lazard, C.) Sinusoides binaires. **(81a:10014)**
- Tkebutava, G. E. On unconditional convergence of Haar series. **(81b:42087)**
- Trebels, Walter See Gasper, George, **(81j:42046)**

42C25 Uniqueness and localization for orthogonal series

- Wade, William R. $H^{(\infty)}$ -sets for the group of integers of a p -series field. **81i:42033**

secondary classifications:

- Skvorcov, V. A. Null series with respect to a multiplicative system. (Russian. English summary) **(81b:43011)**
Walsh series that are convergent with respect to subsequences of partial sums. (Russian) **(81j:42049)**
- Wade, William R. Uniqueness of Walsh series which satisfy an averaged growth condition. **(81m:42025)**

42C30 Completeness of sets of functions

- Crittenden, Richard (with Swanson, Leonard G.) Complete orthonormal systems generated by matrices. **81a:42031**
- Felnerman, Robert Triple orthogonal series. **81a:42032**
- Germano, Bruna See Ghizzetti, Aldo, **81j:42051**
- Ghizzetti, Aldo (with Germano, Bruna) The completeness in $L^2(0, +\infty)$ of some systems of orthogonal polynomials. (Italian) **81j:42051**
- Morelli, Andrea Completeness in $L^2(-\infty, +\infty)$ of certain systems of orthonormal polynomials. (Italian) **81j:42052**

Swanson, Leonard G. See Crittenden, Richard, **81a:42031**

Ullrich, David Divided differences and systems of nonharmonic Fourier series. **81i:42034**

Young, Robert M. ★An introduction to nonharmonic Fourier series. **81m:42027**

secondary classifications:

- Karnick, H. See Sengupta, A., **(81b:82012)**
- Sengupta, A. (with Karnick, H.) Analysis of the neutron slowing down equation. **(81b:82012)**

42C99 None of the above, but in this section

- Kwapień, Stanisław (with Szarek, Stanisław Jerzy) An estimation of the Lebesgue functions of biorthogonal systems with an application to the nonexistence of some bases in C and L^1 . **81b:42027**
- Lau, Ka Sing (with Lee, Jonathan K.) On generalized harmonic analysis. **81i:42035**
- Lee, Jonathan K. See Lau, Ka Sing, **81i:42035**
- Sjölin, Per Equivalence of Haar and Franklin bases in L^p , $1 < p < \infty$. (See **80d:43001**)
- Szarek, Stanisław Jerzy See Kwapień, Stanisław, **81b:42027**

secondary classifications:

- Basov, A. V. Incomparability of two algebras of continuous functions on the sphere. (Russian. English summary) **(81b:46066)**
- Mikolás, M. Orthogonal systems of characteristic functions and Hilbert space. **(81d:46027)**

43-XX ABSTRACT HARMONIC ANALYSIS (For other analysis on topological and Lie groups, see 22Exx.)

43-01 Elementary exposition, textbooks

43-02 Advanced exposition (research surveys, monographs, etc.)

- Graham, Colin C. (with McGehee, O. Carruth) ★Essays in commutative harmonic analysis. **81d:43001**
- Hewitt, Edwin (with Ross, Kenneth A.) ★Abstract harmonic analysis. Vol. I. **81c:43001**
- McGehee, O. Carruth See Graham, Colin C., **81d:43001**
- Ross, Kenneth A. See Hewitt, Edwin, **81c:43001**

secondary classifications:

- Mackey, George W. Harmonic analysis as the exploitation of symmetry—a historical survey. **(81d:01017)**
- Palmer, T. W. Classes of nonabelian, noncompact, locally compact groups. **(81j:22003)**

43-03 Historical (must also be assigned at least one classification number from Section 01)

43-04 Explicit machine computation and programs (not the theory of computation or programming)

43-06 Proceedings, conferences, etc.

Harmonic analysis ★Séminaire d'Analyse Harmonique, 1978–1979. (French) [Seminar on Harmonic Analysis, 1978–1979] **81j:43001**

Seminar:

Harmonic Analysis ★Séminaire d'Analyse Harmonique, 1978–1979. (French) [Seminar on Harmonic Analysis, 1978–1979] **81j:43001**

secondary classifications:

- (Eymard, Pierre) See Analyse harmonique sur les groupes de Lie, **(81c:22002)**
- (Faraut, Jacques) See Analyse harmonique sur les groupes de Lie, **(81c:22002)**
- (Petridis, Nicholas) See Harmonic analysis, **(81c:42001)**
- (Pichioris, Stylianos K.) See Harmonic analysis, **(81c:42001)**
- (Schiffmann, Gérard) See Analyse harmonique sur les groupes de Lie, **(81c:22002)**
- (Takahashi, Reiji) See Analyse harmonique sur les groupes de Lie, **(81c:22002)**
- Taylor, Michael E. Fourier integral operators and harmonic analysis on compact manifolds. **(81i:58042)**
- (Varopoulos, Nicolas) See Harmonic analysis, **(81c:42001)**
- Analyse harmonique sur les groupes de Lie ★Analyse harmonique sur les groupes de Lie. II. (French) [Harmonic analysis on Lie groups. II] **(81c:22002)**
- Conference:
- Harmonic Analysis ★Harmonic analysis, Iraklion 1978. **(81c:42001)**
- Group representations and harmonic analysis ★Group representations and harmonic analysis. (Japanese) **(81m:22002)**
- Harmonic analysis ★Analyse harmonique sur les groupes de Lie. II. (French) [Harmonic analysis on Lie groups. II] **(81c:22002)**
- ★Group representations and harmonic analysis. (Japanese) **(81m:22002)**
- ★Harmonic analysis, Iraklion 1978. **(81c:42001)**
- Iraklion ★Harmonic analysis, Iraklion 1978. **(81c:42001)**
- Lie groups ★Analyse harmonique sur les groupes de Lie. II. (French) [Harmonic analysis on Lie groups. II] **(81c:22002)**
- Nancy-Strasbourg ★Analyse harmonique sur les groupes de Lie. II. (French) [Harmonic analysis on Lie groups. II] **(81c:22002)**
- Séminaire:
- Analyse Harmonique sur les Groupes de Lie ★Analyse harmonique sur les groupes de Lie. II. (French) [Harmonic analysis on Lie groups. II] **(81c:22002)**

Symposium:

Group Representations and Harmonic Analysis ★Group representations and harmonic analysis. (Japanese) (81a:22002)

43A05 Measures on groups, semigroups, etc.

- Dressler, Robert E. (with Pigno, Louis) The Haar measure of certain sets in the Bohr group. 81j:43002
- Igar, Satoru Remarks on the Kronecker's approximation theorem and a unitary measure. 81g:43001
- Inchi, Keiji Convolution powers of singular-symmetric measures. II. 81k:43002
- Kannan, V. (with Vijayakumar, A. K.) Simpler proofs. I. Independent sets are thin. 81g:43002
- Kind, Franz Absolut stetige Masse auf lokalkompakten Halbgruppen. (English summary) 81g:43003
- Mihlin, V. V. Invariant measures on semigroups and imbedding of topological semigroups in topological groups. (Russian) 81k:43003
- Pigno, Louis See Dressler, Robert E., 81j:43002
- Sarason, Nikola On the (c, a) summability of probability measures on compact semigroups. 81d:43002
- On limiting properties of double series of probability distributions defined on compact commutative semigroups. (Serbo-Croatian summary) 81k:43001
- On limiting properties of m -dimensional series of probability distributions defined on compact commutative semigroups. (Serbo-Croatian summary) 81k:43002
- Stewart, James Fourier transforms of unbounded measures. 81i:43001
- Vijayakumar, A. K. See Kannan, V., 81g:43002

secondary classifications:

- Bruckett, Patrick L. (with Hudson, William N.) Zeros of the densities of infinitely divisible measures. (81m:60013)
- Brown, Gavin (with Hewitt, Edwin) Continuous singular measures with small Fourier-Stieltjes transforms. (81m:43007)
- Faulkner, Gary D. (with Huneycutt, J. E., Jr.) Convolution iterates of Banach algebra valued measures. (81c:28004)
- Gallun, I. V. Multidimensional discrete systems with invariant measure. (Russian. English summary) (81j:28020)
- Herrmann, Horst (with Kerstan, Johannes; Liese, Friedrich) Zweidimensionale und lokale Charakterisierung der asymptotischen Gleichverteilung. (81c:60009)
- Hewitt, Edwin See Brown, Gavin, (81m:43007)
- Heyer, Herbert Stetige Hemigruppen von Wahrscheinlichkeitsmaßen und additive Prozesse auf einer lokalkompakten Gruppe. (81a:60015)
- Hudson, William N. See Bruckett, Patrick L., (81m:60013)
- Huneycutt, J. E., Jr. See Faulkner, Gary D., (81c:28004)
- Janssen, Arnold Charakterisierung stetiger Faltungshalbgruppen durch das Lévy-Maß. (81d:60006)
- Kerstan, Johannes See Herrmann, Horst; et al., (81c:60009)
- Koornwinder, Tom H. See Representations of locally compact groups with applications. (81k:22001)
- Liese, Friedrich See Herrmann, Horst; et al., (81c:60009)
- Pedersen, Niels Vigand Semicharacters and solvable Lie groups. (81j:22015)
- Yuan, John A note on angular semigroups. (81d:22002)
- Amsterdam ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Colloquium:
- Representations of Locally Compact Groups with Applications ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Locally compact groups ★Representations of locally compact groups with applications. Part I, II. (81k:22001)
- Representations of locally compact groups with applications ★Representations of locally compact groups with applications. Part I, II. (81k:22001)

43A07 Means on groups, semigroups, etc.

- Bottsch, Martin Invariante Mittel für Vektorfunktionen. 81h:43003
- Choda, Marie (with Watatani, Yasuo) Conditions for inner amenability of groups. 81a:43001
- Chou, Ching Sung Elementary amenable groups. 81h:43004
- Jungheun, H. D. Amenability of function spaces on thick subsemigroups. 81k:43004
- Klawe, Maria M. Dimensions of the sets of invariant means of semigroups. 81j:43003
- Mitchell, Theodore Invariant means and analytic actions. 81m:43001
- Moulin Ollagnier, Jean (with Pinchon, Didier) Dynamical systems of total orders. 81c:43001
- Paterson, Alan L. T. Amenability and locally compact semigroups. 81h:43001
- Weak containment and Clifford semigroups. 81c:43001
- Amenable groups for which every topological left invariant mean is invariant. 81d:43003
- Pinchon, Didier See Moulin Ollagnier, Jean, 81c:43001
- Ramakrishnan, P. V. m -extremely left amenable semigroups. 81k:43005a
- Extremely left measurable semigroups. 81k:43005b
- Watatani, Yasuo See Choda, Marie, 81a:43001

secondary classifications:

- Grigorchuk, R. I. Invariant measures on homogeneous spaces. (Russian) (81k:60073)
- Moore, Calvin C. Amenable subgroups of semisimple groups and proximal flows. (81k:22007)

Zimmer, Robert J. Amenable pairs of groups and ergodic actions and the associated von Neumann algebras. (81e:22000)

43A10 Measure algebras on groups, semigroups, etc.

- Armstrong, Alan Central Fourier-Stieltjes transforms with an isolated value. 81h:43002
- Brown, Gavin (with Moran, William) Maximal elements in the maximal ideal space of a measure algebra. 81f:43001
- Duchon, Miloslav Convolution algebra of vector-valued measures. 81a:43002
- Graham, Colin C. (with MacLean, H. Alan) A multiplier theorem for continuous measures. 81k:43006
- Hartmann, Klaus $[FIA]_S$ Gruppen und Hypergruppen. (English summary) 81e:43002
- Host, B. (with Parreau, F.) Sur les mesures quasi-idempotentes et la fermeture de $\mu \cdot L^1$. 81f:43002
- See also Méla, Jean-François, 81k:43007
- Jenkins, J. W. Invariant functionals and polynomial growth. 81m:43002
- MacLean, H. Alan See Graham, Colin C., 81k:43006
- Méla, Jean-François Le calcul sur les caractères de l'algèbre $M(G)$ et le problème " $\mu \cdot L^1$ fermé ?" [d'après les travaux de B. Host et F. Parreau]. 81h:43007
- Moran, William See Brown, Gavin, 81f:43001
- Parreau, F. See Host, B., 81f:43002 and Méla, Jean-François, 81k:43007
- Rogozin, B. A. (with Sgibnev, M. S.) Banach algebras of measures on the line. (Russian) 81c:43003
- Saka, Kôichi Corrigendum: "On a characterization of some L -subalgebras in measure algebra" [J. London Math. Soc. (2) 9 (1974/75), 261-271; MR 53 #1167]. 81a:43003
- Sgibnev, M. S. See Rogozin, B. A., 81c:43003

secondary classifications:

- Graham, Colin C. (with McGehee, O. Carruth) ★Essays in commutative harmonic analysis. (81d:43001)
- Janssen, Arnold Charakterisierung stetiger Faltungshalbgruppen durch das Lévy-Maß. (81d:60006)
- Jungheun, H. D. C^* -algebras of functions on direct products of semigroups. (81m:22004)
- Kannan, V. (with Vijayakumar, A. K.) Simpler proofs. I. Independent sets are thin. (81g:43002)
- Koshi, Shozo (with Yamaguchi, Hiroshi) The F. and M. Riesz theorem and group structures. (81f:43005)
- McGehee, O. Carruth See Graham, Colin C., (81d:43001)
- Saeki, Sadahiro On convolution squares of singular measures. (81h:42005)
- Vijayakumar, A. K. See Kannan, V., (81g:43002)
- Vrem, Richard C. Harmonic analysis on compact hypergroups. (81g:43009)
- Wood, G. V. Logarithms in multiplier algebras. (81h:43005)
- Yamaguchi, Hiroshi See Koshi, Shozo, (81f:43005)

43A15 L^p -spaces and other function spaces on groups, semigroups, etc.

- Aizley, Paul Semisimplicity for a class of convolution algebras. 81d:43004
- Bachells, Gregory F. Some approximation problems in harmonic analysis. (Italian summary) 81g:43004
- (with Gilbert, John E.) Banach algebras with Rider subalgebras. 81e:43004
- Bertrandias, J.-P. (with Datry, C.; Dupuis, C.) Unions et intersections d'espaces L^p invariants par translation ou convolution. 81e:43005
- Cowling, Michael The Fourier-Stieltjes algebra of a semisimple group. 81e:43005
- An application of Littlewood-Paley theory in harmonic analysis. 81f:43003
- Datry, C. See Bertrandias, J.-P.; et al., 81g:43005
- Dooley, A. H. Random Fourier series for central functions on compact Lie groups. 81k:43008
- Dupuis, C. See Bertrandias, J.-P.; et al., 81g:43005
- Felckinger, Hans G. Weighted L^p -spaces and the canonical mapping $T_H: L^p(G) \rightarrow L^p(G/H)$. (Italian summary) 81a:43004
- Un espace de Banach de distributions tempérées sur les groupes localement compacts abéliens. (English summary) 81e:43006
- A characterization of minimal homogeneous Banach spaces. 81j:43004
- Gîteu, V. M. Invariant algebras of functions on Lie groups. (Russian) 81a:43005b
- Invariant algebras of functions on Lie groups. (Russian) 81a:43005a
- Gilbert, John E. See Bachells, Gregory F., 81e:43004
- Hartman, S. On harmonic separation. 81j:43005
- Jih, Rong Song (with Wang, Huai Ch'uan) Rudin synthesis on homogeneous Banach algebras. 81h:43003
- Koldobskii, A. L. Isometric operators in $L^p(X; \mathbb{R})$. (Russian) 81h:43004
- Las, Anthony To Ming The Fourier-Stieltjes algebra of a topological semigroup with involution. 81h:43005
- Oberlin, Daniel M. Singular measures and l^p Fourier transforms. 81g:43006
- Pfister, Gilles A remarkable homogeneous Banach algebra. 81k:43009
- Poguntke, Detlev Gewisse Segalsche Algebren auf lokalkompakten Gruppen. 81e:43007
- Quak, T. S. (with Yap, Leonard Y. H.) Some recent results on Young's inequality for convolution. 81e:43008
- Rubel, Lee A. Convolution cut-down in some radical convolution algebras. 81f:43004
- Wang, Hui Ch'uan A note on Segal algebras on Euclidean spaces. 81d:43005
- See also Jih, Rong Song, 81h:43003
- Yap, Leonard Y. H. See Quak, T. S., 81e:43008

secondary classifications:

- Bloom, Lynette M. (with Bloom, Walter R.) Idempotent multipliers on spaces of continuous functions with p -summable Fourier transforms. (81j:43008)
- Bloom, Walter R. See Bloom, Lynette M., (81j:43008)
- Crombez, G. (with Govsarts, W.) A characterization of certain weak*-closed

- subalgebras of $L_\infty(G)$. (81j:22009)
 Feichtinger, Hans G. (with Graham, Colin C.; Lakić, Eric H.) Nonfactorization in commutative, weakly selfadjoint Banach algebras. (81f:46060)
 Govaerts, W. See Crombez, G., (81j:22009)
 Graham, Colin C. See Feichtinger, Hans G.; et al., (81f:46060)
 Grigorjan, Š. A. Algebras of finite type on a compact group G . (Russian. Armenian and English summaries) (81b:46068)
 Lakić, Eric H. See Feichtinger, Hans G.; et al., (81f:46060)
 Lau, Anthony To Ming (with McKennon, Kelly) Isomorphisms of locally compact groups and Banach algebras. (81b:43004)
 McKennon, Kelly See Lau, Anthony To Ming, (81b:43004)

43A17 Analysis on ordered groups, H^p -theory

- Berkson, Earl (with Porta, Horacio) The group of isometries of H^p . 81e:43009
 Koshi, Shozo (with Yamaguchi, Hiroshi) The F. and M. Riesz theorem and group structures. 81f:43005
 Pigno, Louis (with Smith, Brent) A remark on the F. and M. Riesz theorem. 81f:43006
 Lau, Anthony To Ming (with McKennon, Kelly) Isomorphisms of locally compact groups and Banach algebras. (81b:43004)
 Smith, Brent See Pigno, Louis, 81f:43006
 Yamaguchi, Hiroshi See Koshi, Shozo, 81f:43005

secondary classifications:

- Grigorjan, Š. A. Algebras of finite type on a compact group G . (Russian. Armenian and English summaries) (81b:46068)
 Nelson, Henry Sections in function spaces. (French summary) (81d:28017)
 Yamaguchi, Hiroshi Some multipliers on $H^p(G)$. (81b:43007)

43A20 L^1 -algebras on groups, semigroups, etc.

- Boldol, J. On a regularity condition for group algebras of nonabelian locally compact groups. 81m:43003
 Bożejko, Marek (with Pelczyński, Aleksander) An analogue in commutative harmonic analysis of the uniform bounded approximation property of Banach space. 81a:43006
 Feichtinger, Hans G. Gewichtsfunktionen auf lokalkompakten Gruppen. 81m:43004
 Gurarie, David Harmonic analysis based on crossed product algebras and motion groups. 81j:43006
 Kaniuth, Eberhard Ideals in group algebras of finitely generated FC-nilpotent discrete groups. 81i:43005
 Leptin, Horst (with Poguntke, Detlev) Symmetry and nonsymmetry for locally compact groups. 81e:43010
 On one-sided harmonic analysis in noncommutative locally compact groups. 81e:43011
 Bemerkungen über Linksideale in Gruppenalgebren. 81m:43005
 Ludwig, Jean A class of symmetric and a class of Wiener group algebras. 81a:43007
 Polynomial growth and ideals in group algebras. 81e:43012
 Pelczyński, Aleksander See Bożejko, Marek, 81a:43006
 Poguntke, Detlev Symmetry (or simple modules) of some Banach algebras. 81e:43013
 See also Leptin, Horst, 81e:43010
 Rogozin, B. A. (with Sgibnev, M. S.) Banach algebras of absolutely continuous measures on the real line. (Russian) 81a:43008
 Sgibnev, M. S. See Rogozin, B. A., 81a:43008
 Stieplien, Gérard L. G. The support of the Wiener algebra on slips. I, II. 81j:43007
 Stegmüller, Ulrich Centers of group algebras. 81b:43002
 Wells, Benjamin B., Jr. Algebras of Fourier transforms with closed restrictions. 81g:43007

secondary classifications:

- Chan, Ming Kam Characterisations of the right multipliers for $L_1(G, A)$. (81d:43006)
 Gikver, V. M. Maximal ideal spaces of invariant algebras. (Russian) (81e:46030)
 Hartmann, Klaus (FIA) $_p$ Gruppen und Hypergruppen. (English summary) (81e:43002)
 Papacostas, Georges C. Le spectre de $(L_1)_1(R, \cdot)$. (81m:46073)
 Shapiro, H. S. A counterexample in harmonic analysis. (81c:46047)
 Warner, C. Robert (with Whitley, Robert) Ideals of finite codimension in $C[0, 1]$ and $L^1(R)$. (81b:46070)
 Whitley, Robert See Warner, C. Robert, (81b:46070)

43A22 Homomorphisms and multipliers of function spaces on groups, semigroups, etc.

- Bloom, Lynette M. (with Bloom, Walter R.) Idempotent multipliers on spaces of continuous functions with p -summable Fourier transforms. 81j:43008
 Bloom, Walter R. Interpolation of multipliers of L^p_f . 81f:43006
 See also Bloom, Lynette M., 81j:43008
 Chan, Ming Kam Characterisations of the right multipliers for $L_1(G, A)$. 81d:43006
 Feichtinger, Hans G. Konvolutionen von $L^1(G)$ nach Lipschitz-Räumen. 81c:43002
 Figà-Talamanca, Alessandro A remark on multipliers of the Fourier algebra of the free group. (Italian summary) 81e:43003
 Gatooupe, Michel Problèmes de complémentation de sous-algèbres dans l'algèbre des séries de Fourier en deux variables absolument convergentes. 81b:43003
 Ghalramani, F. Homomorphisms and derivations on weighted convolution algebras. 81j:43009
 Johnson, David L. (with Lahr, Charles D.) Multipliers of tensor products of CMA's and Radon-Nikodým derivatives. 81j:43010
 Khalil, Roshdi The Hankel multipliers. 81m:43006
 Lahr, Charles D. See Johnson, David L., 81j:43010
 Lau, Anthony To Ming (with McKennon, Kelly) Isomorphisms of locally compact groups and Banach algebras. 81b:43004
 McKennon, Kelly See Lau, Anthony To Ming, 81b:43004

- Oberlin, Daniel M. Translation-invariant operators of weak type. 81f:43007
 Todd, D. G. Multipliers of certain convolution algebras over locally compact semigroups. 81f:43008
 Wood, G. V. Logarithms in multiplier algebras. 81b:43005
 Yamaguchi, Hiroshi Some multipliers on $H^p(G)$. 81b:43007

secondary classifications:

- Cowling, Michael An application of Littlewood-Paley theory in harmonic analysis. (81f:43003)
 Drescher, Bernd (with Schempp, Walter) Approximation on double coset spaces. (81e:43020)
 Quek, T. S. (with Yap, Leonard Y. H.) Some recent results on Young's inequality for convolution. (81e:43008)
 Schempp, Walter See Drescher, Bernd, (81e:43020)
 Yap, Leonard Y. H. See Quek, T. S., (81e:43008)

43A25 Fourier and Fourier-Stieltjes transforms on locally compact abelian groups

- Brown, Gavin (with Hewitt, Edwin) Continuous singular measures with small Fourier-Stieltjes transforms. 81m:43007
 Dierolf, Peter (with Dierolf, Susanne) Strict singularity and weak compactness of the Fourier transform. 81m:43008
 Dierolf, Susanne See Dierolf, Peter, 81m:43008
 Embrechts, Paul A characterization of Fourier-Stieltjes transforms. 81m:43009
 Hewitt, Edwin See Brown, Gavin, 81m:43007
 Pigno, Louis (with Smith, Brent) Almost idempotent measures on compact abelian groups. 81j:43011
 Sasaki, Sadahiro Bohr compactification and continuous measures. 81i:43008
 Smith, Brent See Pigno, Louis, 81j:43011
 Svensson, Erik On Fourier-Stieltjes transforms, integer-valued on a given subset. 81a:43009

secondary classifications:

- Armstrong, Alan Central Fourier-Stieltjes transforms with an isolated value. (81c:43003)
 Bachelis, Gregory F. (with Gilbert, John E.) Banach algebras with Rider subalgebras. (81e:43004)
 Efimov, A. V. (with Zolotareva, S. Ju.) Multiplicative Fourier integral and its discrete analogues. (Russian. English summary) (81j:42045)
 Figà-Talamanca, Alessandro Construction of positive definite functions. (81c:43004)
 Gilbert, John E. See Bachelis, Gregory F., (81e:43004)
 (Host, B.) See Méla, Jean-François, (81k:43007)
 Méla, Jean-François Le calcul sur les caractères de l'algèbre $M(G)$ et le problème " $\mu \cdot L^1$ fermé?" [d'après les travaux de B. Host et F. Parreau]. (81k:43007)
 Oberlin, Daniel M. Singular measures and ℓ^p Fourier transforms. (81g:43006)
 (Parreau, F.) See Méla, Jean-François, (81k:43007)
 Pigno, Louis Transforms which almost vanish at infinity. (81b:42046)
 Zolotareva, S. Ju. See Efimov, A. V., (81j:42045)

43A30 Fourier and Fourier-Stieltjes transforms on nonabelian groups and on semigroups, etc.

- Eymard, Pierre On the Fourier transform for the $ax + b$ group. 81a:43010
 Geller, Daryl Fourier analysis on the Heisenberg group. I. Schwarz space. 81g:43008
 Vrem, Richard C. Harmonic analysis on compact hypergroups. 81g:43009

secondary classifications:

- Baggett, Larry (with Taylor, Keith) A sufficient condition for the complete reducibility of the regular representation. (81f:22005)
 Eymard, Pierre (with Terp, Marianne) La transformation de Fourier et son inverse sur le groupe des $ax + b$ d'un corps local. (81f:22027)
 Howe, Roger E. On the role of the Heisenberg group in harmonic analysis. (81h:22010)
 Pytlak, Tadeusz A Plancherel measure for the discrete Heisenberg group. (81e:22004)
 Stewart, James Fourier transforms of unbounded measures. (81i:43001)
 Taylor, Keith See Baggett, Larry, (81f:22005)
 Terp, Marianne See Eymard, Pierre, (81f:22027)

43A32 Other transforms and operators of Fourier type

secondary classifications:

- Lau, Ka Sing (with Lee, Jonathan K.) On generalized harmonic analysis. (81d:42035)
 Lee, Jonathan K. See Lau, Ka Sing, (81d:42035)
 Rogozin, B. A. (with Sgibnev, M. S.) Banach algebras of absolutely continuous measures on the real line. (Russian) (81a:43008)
 Sgibnev, M. S. See Rogozin, B. A., (81a:43008)
 Wang, Hui Ch'uan A note on Segal algebras on Euclidean spaces. (81d:43005)

43A35 Positive definite functions on groups, semigroups, etc.

- Bellay, J.-M. A representation theorem and applications to topological groups. 81k:43010
 De-Michele, Leonede (with Figà-Talamanca, Alessandro) Positive definite functions on free groups. 81j:43012
 Falkowski, B.-J. Infinitely divisible positive functions on $SO(3) \otimes \mathbb{R}^2$. 81j:43013
 Figà-Talamanca, Alessandro Construction of positive definite functions. 81c:43004
 Singular positive definite functions. 81j:43014
 See also De-Michele, Leonede, 81j:43012

- Flensted-Jensen, Mogens** (with Koornwinder, Tom H.) Positive definite spherical functions on a noncompact, rank one symmetric space. **81j:43015**
Koornwinder, Tom H. See Flensted-Jensen, Mogens, **81j:43015**
Nienl, Hannu Stationary vector measures and positive definite translation invariant bimeasures. **81g:43010**

secondary classifications:

- Baggett, Larry** (with Taylor, Keith) A sufficient condition for the complete reducibility of the regular representation. **(81f:22005)**
Bennett, James G. Induced representations of C^* -algebras and complete positivity. **(81h:46008)**
Berg, Christian (with Christensen, Jens Peter Reus; Jensen, Christian U.) A remark on the multidimensional moment problem. **(81e:44008)**
Christensen, Jens Peter Reus See Berg, Christian; et al., **(81e:44008)**
Jensen, Christian U. See Berg, Christian; et al., **(81e:44008)**
O'Connor, Thomas A. Convex combinations of homomorphisms. **(81m:46078)**
Sitaram, Alladi Positive definite distributions on $K \backslash G / K$. II. **(81e:43024)**
Szmidt, Janusz The duality theorems. Cyclic representations. Langlands conjectures. **(81j:22012)**
Taylor, Keith See Baggett, Larry, **(81f:22005)**

43A40 Character groups and dual objects

- Hartmann, Klaus** (with Henrichs, Rolf Wim; Lasser, Rupert) Duals of orbit spaces in groups with relatively compact inner automorphism groups are hypergroups. **81b:43006**
Henrichs, Rolf Wim See Hartmann, Klaus; et al., **81b:43006**
Lasser, Rupert See Hartmann, Klaus; et al., **81b:43006**

43A45 Spectral synthesis on groups, semigroups, etc.

- Atzmon, Aharon** On the union of sets of synthesis and Ditkin's condition in regular Banach algebras. **81b:43007**
Baskakov, A. G. Bernstein-type inequalities in abstract harmonic analysis. (Russian) **81h:43006**
Domar, Yngve On spectral synthesis in \mathbb{R}^n , $n > 2$. **81i:43009**
Esterle, Jean A complex-variable proof of the Wiener Tauberian theorem. (French summary) **81j:43016**
Lasser, Rupert A result on spectral synthesis of direct products. **81i:43010**
Osipov, V. F. Some questions of spectral synthesis on subsets of Euclidean spaces. (Russian. English summary) **81i:43011**
Radevskii, P. K. Description of closed invariant subspaces in certain function spaces. (Russian) **81d:43007**
Weil, Vitzhak On Schwartz's theorem for the motion group. (French summary) **81h:43007**
 On Beurling's theorem for locally compact groups. **81i:43012**

secondary classifications:

- Galanis, Efstratios** On a problem of spectral synthesis in regular Banach algebras. (Greek summary) **(81i:46064)**
43A46 Special sets (thin sets, Kronecker sets, Helson sets, Ditkin sets, Sidon sets, etc.)
Blel, Ron C. Fractional Cartesian products of sets. (French summary) **81h:43008**
 Multidimensional extensions of the Grothendieck inequality and applications. **81h:43008**
 Interpolation sets and extensions of the Grothendieck inequality. **81j:43017**
Bożejko, Marek Sets of uniqueness on noncommutative locally compact groups. II. **81h:43010**
Kaufman, Robert P. On transformations of exceptional sets. **81g:43011**
Pisier, Gilles Lacunarité et processus gaussiens. (English summary) **81e:43014**
Ricci, Fulvio A multiplicative structure on some spaces of pseudomeasures on the circle and related properties. (French summary) **81j:43018**
Wade, William R. Sets of uniqueness for the group of integers of a p -series field. **81d:43008**
Yamaguchi, Hiroshi Remarks on Riesz sets. **81a:43011**

secondary classifications:

- Dressler, Robert E.** (with Pigno, Louis) The Haar measure of certain sets in the Bohr group. **(81j:43002)**
Kannan, V. (with Vijayakumar, A. K.) Simpler proofs. I. Independent sets are thin. **(81g:43002)**
Kwapień, Stanisław (with Pełczyński, Aleksander) Absolutely summing operators and translation-invariant spaces of functions on compact abelian groups. **(81j:47015)**
Pełczyński, Aleksander See Kwapień, Stanisław, **(81j:47015)**
Pigno, Louis See Dressler, Robert E., **(81j:43002)**
Pisier, Gilles Les inégalités de Khintchine-Kahane, d'après C. Borell. **(81e:60005)**
Saeki, Sadahiro Bohr compactification and continuous measures. **(81i:43008)**
Vijayakumar, A. K. See Kannan, V., **(81g:43002)**

43A50 Convergence of Fourier series and of inverse transforms

- Beke, George** Bernstein's theorem for compact groups. **81i:43013**
Long, Rui Lin On pointwise convergence of sequences of convolution operators. **81e:43015**

secondary classifications:

- Geller, Daryl** Some results in H^p theory for the Heisenberg group. **(81j:32009)**
Giulini, Saverio (with Soardi, Paolo M.; Travaglini, Giancarlo) A Cohen type inequality for compact Lie groups. **(81h:43009)**
Rubio de Francia, José L. On the convergence of double Fourier series. (Russian summary) **(81e:42023)**
Schipp, Ferenc Convergence of serial expansions using product systems. (Hungarian) **(81m:42024)**
Soardi, Paolo M. See Giulini, Saverio; et al., **(81h:43009)**
Travaglini, Giancarlo See Giulini, Saverio; et al., **(81h:43009)**

43A55 Summability methods on groups, semigroups, etc. [See also 40J05.]

- Giulini, Saverio** (with Soardi, Paolo M.; Travaglini, Giancarlo) A Cohen type inequality for compact Lie groups. **81h:43009**
Soardi, Paolo M. See Giulini, Saverio; et al., **81h:43009**
Travaglini, Giancarlo See Giulini, Saverio; et al., **81h:43009**

secondary classifications:

- Cormack, A. M.** (with Quinto, Eric Todd) A Radon transform on spheres through the origin in \mathbb{R}^n and applications to the Darboux equation. **(81i:44001)**
Mainis, K. The structure of admissible complexes of lines in CP^n . (Russian) **(81h:53011)**
Quinto, Eric Todd See Cormack, A. M., **(81i:44001)**

43A60 Almost periodic functions on groups and semigroups and their generalizations (recurrent functions, distal functions, etc.); almost automorphic functions

- Chou, Ching Sung** Minimally weakly almost periodic groups. **81f:43009**
Greenleaf, F. P. Concrete methods for summing almost periodic functions and their relation to uniform distribution of semigroup actions. **81e:43005**
Kayano, Takasi Almost periodic functions on topological semigroups. **81e:43006**
Lust-Piquard, F. L'espace des fonctions presque-périodiques dont le spectre est contenu dans un ensemble compact dénombrable à la propriété de Schur. **81m:43011**
Milnes, Paul (with Pym, J. S.) Function spaces on semitopological semigroups. **81i:43014**
Nagorev, B. M. See Nazarov, F., **81h:43009**
Nazarov, F. (with Nagorev, B. M.) Some hereditary properties of almost periodic functions. (Russian. Tajiki summary) **81h:43009**
Pym, J. S. See Milnes, Paul, **81i:43014**
Yamaguchi, Hiroshi Remarks on the spaces of type $H + AP$. **81a:43012**

secondary classifications:

- Bellej, J.-M.** A representation theorem and applications to topological groups. **(81k:43010)**
Precupanu, Anca Almost automorphic functions on topological semigroups. **(81m:22005)**
Tonge, Andrew La presque-périodicité et les coalgèbres injectives. (English summary) **(81j:46075)**
Veech, William A. Weakly almost periodic functions on semisimple Lie groups. **(81b:22012)**

43A65 Representations of groups, semigroups, etc. [See also 22Dxx.]

- Kawazoe, Takeshi** An analogue of Paley-Wiener theorem on rank 1 semisimple Lie groups. I, II. **81e:43016**
Litvinov, G. L. Generalized shift operators and their representations. (Russian) **81e:43017**
Petrov, E. E. Harmonic analysis on a finite sphere. (Russian) **81m:43012**
 secondary classifications:
(Harish-Chandra) See Silberger, Allan J., **(81m:22025)**
Mauceri, Giancarlo (with Picardello, Massimo A.) Noncompact unimodular groups with purely atomic Plancherel measures. **(81h:22005)**
Mayer-Lindenberg, Fritz Invariante Spuren auf Gruppenalgebren. (English summary) **(81b:22008)**
Picardello, Massimo A. See Mauceri, Giancarlo, **(81h:22005)**
Poguntke, Detlev Gewisse Segal'sche Algebren auf lokalkompakten Gruppen. **(81e:43007)**
Silberger, Allan J. ★ Introduction to harmonic analysis on reductive p -adic groups. **(81m:22025)**

43A70 Analysis on specific locally compact abelian groups [See also 12A85.]

- Chao, Jia Arng** (with Taibleson, Mitchell H.) Generalized conjugate systems on local fields. **81f:43010**
Janson, Svante Singular integrals on local fields and generalizations to martingales. **81f:43011**
Omnewer, C. W. Pointwise differentiation on local fields. **81h:43010**
Phillips, Keith Distributional and operational integral homogeneity over local fields. **81e:43018**
Taibleson, Mitchell H. An introduction to Hardy spaces on local fields. **81i:43015**
 See also Chao, Jia Arng, **81f:43010**

secondary classifications:

- Dennar, Yagve On spectral synthesis in \mathbb{R}^n , $n \geq 2$. (81i:43009)
 Fujii, Nobuhiko A maximal inequality for H^1 -functions on a generalized Walsh-Paley group. (81b:42079)

43A75 Analysis on specific compact groups

- Helson, Henry Compact groups with ordered duals. VII. 81m:43013
 Lagnaf, A. On the construction of partial sums of Fourier series on the rotation group $SO(3)$ from tensor components. (Russian) 81k:43011
 Quek, T. S. (with Yap, Leonard Y. H.) Absolute convergence of Vilenkin-Fourier series. 81d:43009
 Rubinstein, A. I. Parseval's identity for functions defined on a zero-dimensional group. (Russian) 81j:43019
 Skovron, V. A. Null series with respect to a multiplicative system. (Russian. English summary) 81b:43011
 Yap, Leonard Y. H. See Quek, T. S., 81d:43009

secondary classifications:

- Berger, Charles A. (with Coburn, Lewis A.) Wiener-Hopf operators on U_2 . (81e:47031)
 Coburn, Lewis A. See Berger, Charles A., (81e:47031)
 Dresler, Robert E. (with Pigno, Louis) The Haar measure of certain sets in the Bohr group. (81j:43002)
 Gross, Kenneth I. (with Holman, Wayne J., III) Matrix-valued special functions and representation theory of the conformal group. I. The generalized gamma function. (81d:22022)
 Holman, Wayne J., III See Gross, Kenneth I., (81d:22022)
 Pigno, Louis See Dresler, Robert E., (81j:43002)
 Wade, William R. $H^{(p)}$ -sets for the group of integers of a p -series field. (81i:42033)

43A77 Analysis on general compact groups

- Dresler, Bernd Lebesgue constants for spherical partial sums of Fourier series on compact Lie groups. 81f:43012

secondary classifications:

- Marinov, M. S. Invariant volumes of compact groups. (81m:53053)

43A80 Analysis on other specific Lie groups [See also 22E30.]

- Folland, G. B. Lipschitz classes and Poisson integrals on stratified groups. 81e:43019
 Kashiwara, Masaki (with Kowata, Atsutaka; Minemura, K.; Okamoto, Kiyosato; Oshima, Toshio; Tanaka, Makoto) Eigenfunctions of invariant differential operators on a symmetric space. 81f:43013
 Kowata, Atsutaka See Kashiwara, Masaki; et al., 81f:43013
 Minemura, K. See Kashiwara, Masaki; et al., 81f:43013
 Okamoto, Kiyosato See Kashiwara, Masaki; et al., 81f:43013
 Oshima, Toshio See Kashiwara, Masaki; et al., 81f:43013
 Smydyt, Zofia On homogeneous rotation invariant distributions and the Laplace operator. 81k:43012a
 (with Ziemian, Bogdan) Fundamental solution E_n of the operator $\partial^2/\partial t^2 - \Delta_n$ for $n > 3$. 81k:43012c
 Tanaka, Makoto See Kashiwara, Masaki; et al., 81f:43013
 Ziemian, Bogdan On distributions invariant with respect to some linear transformations. 81k:43012b
 See also Smydyt, Zofia, 81k:43012c

secondary classifications:

- Felix, Rainer Ein kurzer Beweis für den Satz von Schiffmann mit Hilfe von Kirillov's Charakterformel. (81i:22004)
 Geller, Daryl Local solvability and homogeneous distributions on the Heisenberg group. (81e:35064)
 Gross, Kenneth I. (with Holman, Wayne J., III; Kunze, Ray A.) A new class of Bessel functions and applications in harmonic analysis. (81h:22009)
 (Harish-Chandra) See Silberger, Allan J., (81m:22025)
 Holman, Wayne J., III See Gross, Kenneth I.; et al., (81h:22009)
 Kunze, Ray A. See Gross, Kenneth I.; et al., (81h:22009)
 Loe, Gérard Hypocoellipticité et résolubilité d'opérateurs différentiels sur des groupes nilpotents de rang 2. (English summary) (81a:58045)
 Mamiada, Masahiko On singularities of the Harish-Chandra expansion of the Eisenstein integral on $Spin(4, 1)$. (81f:22014)
 Matsushima, Osamu The Plancherel formula for the universal covering group of $SL(2, \mathbb{R})$. (81e:22023)
 Ogden, R. D. (with Vági, S.) Harmonic analysis of a nilpotent group and function theory of Siegel domains of type II. (81f:22016)
 Rais, Mustapha Opérateurs différentiels bi-invariants (d'après M. Duflo). (81d:22013)
 Silberger, Allan J. ★Introduction to harmonic analysis on reductive p -adic groups. (81m:22025)
 Trofimov, V. V. Finite-dimensional representations of Lie algebras and completely integrable systems. (Russian) (81h:58037)
 Trombi, P. C. Asymptotic expansions of matrix coefficients: the real rank one case. (81i:22010)
 Vági, S. See Ogden, R. D., (81f:22016)

43A85 Analysis on homogeneous spaces

- Černov, V. G. See Petrov, E. E., 81j:43012
 Dresler, Bernd (with Schempp, Walter) On some applications of

- Bochner-Schoenberg-Eberlein-type theorems. 81e:43007
 (with Schempp, Walter) Approximation on double coset spaces. 81e:43020
 Eguchi, Masaki An application of topological Paley-Wiener theorems to invariant differential equations on symmetric spaces. 81e:43021
 Asymptotic expansions of Eisenstein integrals and Fourier transform on symmetric spaces. 81e:43022
 El Kohen, A. Maximal operators on hyperboloids. 81j:43020
 Kazhdan, David Integral geometry and representation theory. (See 81j:22001)
 Lax, Peter D. (with Phillips, Ralph S.) Translation representations for the solution of the non-Euclidean wave equation. 81a:43013
 Loeb, Jacques L'analyse harmonique sur les espaces symétriques de rang 1. Une réduction aux espaces hyperboliques réels de dimension impaire. 81e:43023
 (Lazutic, George) See Kazhdan, David, (See 81j:22001)
 O'Connell, M. A. (with Perelomov, A. M.) Quantum systems that are connected with root systems, and radial parts of Laplace operators. (Russian) 81a:43014
 Oshima, Toshio Poisson transformations on affine symmetric spaces. 81k:43013
 (with Sekiguchi, Jiro) Eigenspaces of invariant differential operators on an affine symmetric space. 81k:43014
 Penney, Richard C. Central idempotent measures on a nilmanifold. 81d:43010
 Perelomov, A. M. See O'Connell, M. A., 81a:43014
 Petrov, E. E. (with Černov, V. G.) The Radon transform in a Grassmann manifold over a local field. (Russian) 81g:43012
 Phillips, Ralph S. See Lax, Peter D., 81a:43013
 Schempp, Walter See Dresler, Bernd, 81c:43007 and Dresler, Bernd, 81c:43020
 Sekiguchi, Jiro See Oshima, Toshio, 81k:43014
 Sitaram, Alladi Positive definite distributions on $K \backslash G/K$. II. 81e:43024

secondary classifications:

- Berezin, F. A. The connection between covariant and contravariant symbols of operators on classical complex symmetric spaces. (Russian) (81j:32031)
 Bertine, Nicole (with Vergne, Michèle) Équations de Hua et intégrales de Poisson. (English summary) (81c:32059)
 DeGeorge, David L. Length spectrum for compact locally symmetric spaces of strictly negative curvature. (81i:58047)
 (with Wallach, Nolan R.) Limit formulas for multiplicities in $L^2(\Gamma \backslash G)$. II. The tempered spectrum. (81g:22010)
 De-Michele, Leonede (with Inglis, Ian R.) L^p estimates for strongly singular integrals on spaces of homogeneous type. (81k:42017)
 Inglis, Ian R. See De-Michele, Leonede, (81k:42017)
 Johnson, Kenneth D. (with Korányi, Adam) The Hua operators on bounded symmetric domains of tube type. (81j:32032)
 Korányi, Adam Compactifications of symmetric spaces and harmonic functions. (81e:32037)
 See also Johnson, Kenneth D., (81j:32032)
 Lassalle, Michel Deux généralisations du "théorème des trois cercles" de Hadamard. (81g:32029)
 Lichtenstein, Woody Qualitative behavior of special functions on compact symmetric spaces. (81g:58041)
 Mantero, Anna Maria Modified Poisson kernels on rank one symmetric spaces. (81f:22015)
 Miatello, Roberto J. The Minakshisundaram-Pleijel coefficients for the vector-valued heat kernel on compact locally symmetric spaces of negative curvature. (81f:58033)
 Ørsted, Bent Composition series for analytic continuations of holomorphic discrete series representations of $SU(n, n)$. (81g:22020)
 Osborne, M. Scott (with Warner, Garth) Multiplicities of the integrable discrete series: the case of a nonuniform lattice in an R -rank one semisimple group. (81g:22011)
 Penney, Richard C. Harmonically induced representations on nilpotent Lie groups and automorphic forms on nilmanifolds. (81h:22008)
 (Strasburger, Aleksander) See Wawrzyńczyk, Antoni, (81c:33011)
 Tolluier, R. Heisenberg manifolds and theta functions. (81d:22012)
 Vergne, Michèle See Bertine, Nicole, (81c:32059)
 Viano, G. A. On the harmonic analysis of the elastic scattering amplitude of two spinless particles at fixed momentum transfer. (81m:81064)
 Wallach, Nolan R. See DeGeorge, David L., (81g:22010)
 Warner, Garth See Osborne, M. Scott, (81g:22011)
 Wawrzyńczyk, Antoni ★Współczesna teoria funkcji specjalnych. (Polish) [Contemporary theories of special functions] (81c:33011)
 Zalcman, Lawrence Offbeat integral geometry. (81b:53046)

43A90 Spherical functions [See also 22E45, 22E46.]

- Arnaud, Jean-Pierre Fonctions sphériques et fonctions définies positives sur l'arbre homogène. (English summary) 81c:43008
 Bagchi, Suresh Chandra (with Sitaram, Alladi) Spherical mean periodic functions on semisimple Lie groups. 81j:43021
 Lucpian, Jean-Claude Erratum: "Expression sous forme covariante des fonctions sphériques zonales attachées aux groupes $SO(N)$ et $SH(N)$ " [C. R. Acad. Sci. Paris Sér. A-B 287 (1978), no. 2, A67-A69; MR 58 #12216]. 81j:43022
 Molčanov, V. F. Plancherel's formula for hyperboloids. (Russian) 81j:43023
 Sitaram, Alladi See Bagchi, Suresh Chandra, 81j:43021

secondary classifications:

- Clerc, Jean-Louis Transformation de Fourier sphérique des espaces de Schwartz. (English summary) (81j:22016)
 Deans, Stanley R. Gegenbauer transforms via the Radon transform. (81c:44007)
 DeGeorge, David L. (with Wallach, Nolan R.) Limit formulas for multiplicities in $L^2(\Gamma \backslash G)$. II. The tempered spectrum. (81g:22010)
 Dieudonné, Jean Gelfand pairs and spherical functions. (81f:22013)
 Flensted-Jensen, Mogens (with Koornwinder, Tom H.) Positive definite spherical

- functions on a noncompact, rank one symmetric space. (81j:43015)
- Helgason, Sigurdur A duality for symmetric spaces with applications to group representations. III. Tangent space analysis. (81g:22021)
- Koornwinder, Tom H. See Flensted-Jensen, Mogens. (81j:43015)
- Osborne, M. Scott (with Warner, Garth) Multiplicities of the integrable discrete series: the case of a nonuniform lattice in an R -rank one semisimple group. (81g:22011)
- Trembl, P. C. Asymptotics of functions satisfying the γ -weak inequality with applications to uniformly bounded representations. (81j:22018)
- Urakawa, Hajime On the least positive eigenvalue of the Laplacian for the compact quotient of a certain Riemannian symmetric space. (81d:58056)
- Wallach, Nolan R. See DeGeorge, David L. (81g:22010)
- Warner, Garth See Osborne, M. Scott. (81g:22011)

43A95 Categorical methods [See also 18-XX, 46Mxx.]

43A99 Miscellaneous topics

secondary classifications:

- Bandman, O. L. (with Markova, V. P.) Analysis of properties of hypergraphs and graphs by means of their Fourier transforms. (Russian) (81f:05126)
- Marcus, Michael B. (with Pisier, Gilles) Random Fourier series on locally compact abelian groups. (81m:60063)
- Markova, V. P. See Bandman, O. L. (81f:05126)
- Pisier, Gilles See Marcus, Michael B. (81m:60063)
- de Vries, J. Integration on locally compact groups. (See 81k:22001)

44-XX INTEGRAL TRANSFORMS, OPERATIONAL CALCULUS (For fractional derivatives and integrals, see 26A33. For numerical methods, see 65R10.)

44-01 Elementary exposition, textbooks

- Ameling, Walter ★Laplace-Transformation. (German) [Laplace transforms] 81j:44001
- Löhr, Hans Josef ★Beispiele und Aufgaben zur Laplace-Transformation. (German) [Examples and problems with Laplace transforms] 81f:44001
- Rutelli, Giovanni Integral transforms in the study of transitory phenomena of physical systems. (Italian. English summary) 81b:44001

secondary classifications:

- Chen, Isaac I. H. Modified Hankel transforms and elliptic trigonometry. (81j:33006)

44-02 Advanced exposition (research surveys, monographs, etc.)

44-03 Historical (must also be assigned at least one classification number from Section 01)

- Deakin, Michael A. B. Euler's version of the Laplace transform. 81g:44001

secondary classifications:

- Lützen, Jesper Heaviside's operational calculus and the attempts to rigorize it. (81j:01023)

44-04 Explicit machine computation and programs (not the theory of computation or programming)

44-06 Proceedings, conferences, etc.

44A05 General transforms [See also 42A38.]

- Andrea, Stephen A. Acknowledgment: "On the support of the Radon transform" [Rocky Mountain J. Math. 9 (1979), no. 2, 193-196; MR 80d:44003]. 81f:44002
- Cormack, A. M. (with Quinto, Eric Todd) A Radon transform on spheres through the origin in R^n and applications to the Darboux equation. 81f:44001
- Dutta, M. (with Mukherjee, A.) On a classification of integral transforms after their abstract structure. 81c:44001
- Gupta, K. C. On a study of integral transforms. 81k:44001
- Leis, R. Zur Theorie der Integraltransformationen. (English summary) 81b:44002
- Mukherjee, A. See Dutta, M. 81c:44001
- Namias, Victor The fractional order Fourier transform and its application to quantum mechanics. 81g:44002
- Quinto, Eric Todd See Cormack, A. M. 81f:44001
- Sharma, S. D. Multiple generalized prolate spheroidal wave transform and its application. 81g:44003
- Struble, Raymond A. Operational rules. 81f:44003

secondary classifications:

- Armstrong, Judith A. (with Bleistein, Norman) Asymptotic expansions of integrals with oscillatory kernels and logarithmic singularities. (81a:41047)
- Bleistein, Norman See Armstrong, Judith A. (81a:41047)
- Frenkin, A. R. See Gostev, V. B.; et al. (81h:45014)
- Gostev, V. B. (with Mineev, V. S.; Frenkin, A. R.) Exact solution of functional equations of a special form. (Russian) (81h:45014)
- McBride, Adam C. ★Fractional calculus and integral transforms of generalized functions. (81d:46045)
- Mineev, V. S. See Gostev, V. B.; et al. (81h:45014)
- Moyalian, Richard Conjugate transforms for τ_T semigroups of probability distribution

functions. (81f:60024)

- Wong, R. Explicit error terms for asymptotic expansions of Mellin convolutions. (81a:41049)

44A10 Laplace transform

- Blagoveshchenskii, A. S. On the Lavrent'ev-Romanov problem of integral geometry. (Russian. English summary) 81d:44001
- Boyd, James N. (with Raychowdhury, P. N.) Improper integrals and Laplace transforms from generating functions. 81d:44002
- Carlson, B. C. The Laplace transform of a product of Bessel functions. 81c:44001
- Gahovitz, A. S. Operational calculus of rapidly increasing functions. (Russian) 81c:44002
- Uniqueness of the Laplace-Euler transform of rapidly increasing functions. (Russian) 81f:44004
- Gaudin, M. Sur la transformée de Laplace de tr^{-4} considérée comme fonction de la diagonale de A . (English summary) 81g:44004
- Karunakar, Sudhanagha B. Laplace transform solution of nonlinear differential equations. 81c:44003
- Luxemburg, W. A. J. On an asymptotic problem concerning the Laplace transform. 81b:44003
- Melnik, V. I. Inverse theorems for the Laplace transform and corollaries of them. (Russian) 81f:44005
- Milman, Mario Spaces between L^1 and L^∞ and the Laplace transform. 81c:44004
- Nikolic-Despotovic, Danica The application of an approximation to a special operator. (Serbo-Croatian summary) 81c:44005
- Raychowdhury, P. N. See Boyd, James N. 81d:44002
- Sevriuk, K. S. Some theorems on Laplace and Varma transforms. (Hindi. English summary) 81g:44005
- Sova, Miroslav The Laplace transform of exponentially bounded vector-valued functions (real conditions). 81a:44001
- Relation between real and complex properties of the Laplace transform. (Czech summary) 81k:44002
- Srivastava, Hari M. The Laplace transform of the modified Bessel function of the second kind. 81c:44002
- Stadtmüller, Ulrich (with Trautner, Rolf) Tauberian theorems for Laplace transforms. 81f:44006
- Struble, Raymond A. Functions meromorphic in right half-planes are Laplace transforms. 81c:44006
- de Swaan Oliva, Abraham The symmetric Laplace transform of the function $(1/x)\exp(-as/(x+b))$. (Spanish) 81h:44001
- Trautner, Rolf See Stadtmüller, Ulrich. 81f:44006
- Upadhyaya, R. D. Real inversion theorem for third iterate of Laplace transform of generalized functions. 81f:44007
- Zanovello, Renato Numerical analysis of the Laplace transform of the Struve function $H_s(x)$. (Italian) 81j:44002
- Numerical analysis of the Laplace transforms of the Anger and Weber functions. (Italian) 81j:44003

secondary classifications:

- Ameling, Walter ★Laplace-Transformation. (German) [Laplace transforms] (81j:44001)
- Bourgin, D. G. Transforms. (81b:55004)
- Boyd, James N. (with Raychowdhury, P. N.) Fresnel integrals and improper integrals of Bessel functions. (81j:33007)
- Burkill, H. Sequences characterizing the sine function. (81k:26013)
- Čeršák, J. Integral transformation and problems of the theory of functions of complex variables. (Russian. English summary) (81a:30023)
- Deakin, Michael A. B. Euler's version of the Laplace transform. (81g:44001)
- Drožžinov, Ju. N. (with Zavjalov, B. I.) Tauberian theorems for generalized functions with carriers in the cones. (Russian) (81a:46045)
- Favini, Angelo Laplace transform method for a class of degenerate evolution problems. (Italian summary) (81k:34052)
- Kahane, Charles Generalizations of the Riemann-Lebesgue and Cantor-Lebesgue lemmas. (81d:40001)
- Koul, C. L. See Raina, R. K. (81b:26003)
- Lee, L. L. Continuum calculus. IV. The Laplace transform method in the evaluation of the Feynman path integrals with a Gaussian measure and applications in quantum mechanics. (81f:81018)
- Löhr, Hans Josef ★Beispiele und Aufgaben zur Laplace-Transformation. (German) [Examples and problems with Laplace transforms] (81f:44001)
- Mamedov, R. G. (with Veisov, I. A.) Some theorems on functional multipliers for Fourier and Laplace transforms. (Russian) (See 80d:00021)
- Mossabeh, S. On the existence of right-coprime factorization for functions meromorphic in a half-plane. (81j:30073)
- Pathan, M. A. On operational calculus. (Arabic summary) (81g:44011)
- Raina, R. K. (with Koul, C. L.) On Weyl fractional calculus. (81b:26003)
- Rao, G. L. N. The distributional F_T -transform. (81c:44004)
- Rathore, R. K. S. (with Singh, O. P.) On convergence of derivatives of Post-Widder operators. (81j:41035)
- Raychowdhury, P. N. See Boyd, James N. (81j:33007)
- Ross, Bertram The evaluation of a limit of an indeterminate form. (81b:26005)
- Sadykov, V. E. Asymptotic behavior of a class of double integrals depending on two parameters. (Russian) (81c:41074)
- Shultz, Harris S. Operational calculus for functions of two variables. (81f:44013)
- Singh, O. P. See Rathore, R. K. S. (81j:41035)
- Skinner, L. A. Note on the asymptotic behavior of multidimensional Laplace integrals. (81j:41026)
- Veisov, I. A. See Mamedov, R. G. (See 80d:00021)
- Williams, M. M. R. On two integro-differential equations arising in particle transport theory. (81c:82034)
- Zavjalov, B. I. See Drožžinov, Ju. N. (81a:46045)
- Zinov'ev, Ju. M. Lorentz-invariant distributions and the Laplace transform. (81h:46041)

44A15 Special transforms (Legendre, Hilbert, etc.)

- Articolo, G. A. Convolutions of Sturm-Liouville transforms: the singular sine and cosine. **81j:44006**
- Avestijan, A. E. On the theory of integral transformations of M. M. Džrbaijan. (Russian. Armenian and English summaries) **81b:44004**
- Beregovenko, G. Ja. See Puhov, G. E., **81b:44007**
- Berg, Christian The Stieltjes cone is logarithmically convex. **81a:44002**
- Bhonsle, B. R. (with Prabhu, R. A.) An inversion formula for a distributional finite-Hankel-Laplace transformation. **81d:44003**
- Butzer, P. L. (with Stens, R. L.; Wehrens, M.) The continuous Legendre transform, its inverse transform, and applications. **81b:44002**
- Byrne, Angelina See Love, E. R., **81j:44004**
- Carton-Lebrun, C. Remarques sur les relations de dispersion. **81m:44001**
- Das, G. L. On the behaviour of the function defined by a generalised Laplace-Stieltjes integral. **81f:44008**
- Deans, Stanley R. Gegenbauer transforms via the Radon transform. **81c:44007**
- Dimovski, Ivan Hristov (with Kirjakova, V. S.) On an integral transformation due to N. Obrechhoff. **81b:44002**
- Glauke, Hans-Jürgen Eine Verallgemeinerung der Laguerre-Transformation. **81b:44005**
- Gupta, S. D. An extension of the finite Mathieu transforms and its applications. II. **81c:44003**
- Hamaker, C. (with Smith, K. T.; Solmon, D. C.; Wagner, S. L.) The divergent beam X-ray transform. **81b:44003**
- Kak, Subhash The discrete finite Hilbert transform. **81f:44009**
- Kirjakova, V. S. See Dimovski, Ivan Hristov, **81b:44002**
- Kostjanec, S. G. Applications of Hankel integral transformations to some problems in the potential theory in gradient media. **81c:44004**
- Love, E. R. (with Byrne, Angelina) Real inversion theorems for generalized Stieltjes transforms. **81j:44004**
- Luther, Wolfram A Tauberian remainder theorem for the Hankel transform. **81b:44006**
- Mintzer, Frederick C. See Teaney, Dale T.; et al., **81c:44010**
- Moruzzi, Victor L. See Teaney, Dale T.; et al., **81c:44010**
- Naylor, D. On an integral transform of the Mellin type. **81c:44008**
- (Obrechhoff, Nikola) See Dimovski, Ivan Hristov; et al., **81b:44002**
- Pandey, Jagdish N. See Pathak, Ram S., **81c:44009** and Tiwari, U. N., **81f:44012**
- Pathak, Ram S. (with Pandey, Jagdish N.) A distributional Hardy transformation. **81c:44009**
- Ponomarenko, S. P. See Virčenko, N. O., **81b:44003**
- Prabhu, R. A. See Bhonsle, B. R., **81d:44003**
- Pradhan, K. M. The generalized Bessel transform. **81f:44010**
- Puhov, G. E. (with Beregovenko, G. Ja.) Operator methods for studying parametric and nonlinear systems. (Russian. English summary) **81b:44007**
- Rao, V. L. N. A property of self-reciprocal functions. **81b:44005**
- On relations between kernels and self-reciprocal functions in the Hankel transform. **81j:44005**
- Rosenbloom, P. C. Inequalities for moments and means. **81j:44006**
- Sahankhe, V. S. Weierstrass transform of generalized functions. **81b:44008**
- Sharma, H. N. The generalisations of third iterated Laplace transform as convolution transforms and their inverses. **81j:44007**
- Sharma, S. D. On two-dimensional finite Mathieu transforms. **81c:44003**
- Smith, K. T. See Hamaker, C.; et al., **81b:44003**
- Solmon, D. C. See Hamaker, C.; et al., **81b:44003**
- Soni, Keesam Exact error terms in the asymptotic expansion of a class of integral transforms. I. Oscillatory kernels. **81b:44003**
- Stens, R. L. See Butzer, P. L.; et al., **81b:44002**
- Šub-Sizonenko, Ju. A. Inversion of an integral operator by the method of expansion with respect to orthogonal Watson operators. (Russian) **81f:44011**
- Teaney, Dale T. (with Moruzzi, Victor L.; Mintzer, Frederick C.) The tempered Fourier transform. **81c:44010**
- Tiwari, A. K. On a generalized Stieltjes transform of a class of generalized functions. **81c:44011**
- Tiwari, U. N. (with Pandey, Jagdish N.) The Stieltjes transform of distributions. **81f:44012**
- Trastner, Rolf Density properties of Mellin transforms. **81g:44007**
- Virčenko, N. O. (with Ponomarenko, S. P.) Properties of the generalized Mehler-Fock integral transformation and its application to the solution of dual-integral equations. (Russian. English summary) **81a:44003**
- Wagner, S. L. See Hamaker, C.; et al., **81b:44003**
- Wehrens, M. See Butzer, P. L.; et al., **81b:44002**
- Wong, R. Asymptotic expansion of the Hilbert transform. **81a:44004**

secondary classifications:

- Aguliera, N. E. Maximal operators associated to radial functions in $L^2(\mathbb{R}^2)$. (81j:42036)
- Ash, J. Marshall (with Ash, P. F.; Fefferman, Charles; Jones, R. L.) Singular integral operators with complex homogeneity. (81f:42011)
- Ash, P. F. See Ash, J. Marshall; et al., (81f:42011)
- Bočortšivili, M. A. The Riesz transform in the space E^n ($n > 2$). (Russian) (81b:42065)
- Cavaretta, Alfred S., Jr. (with Micchelli, Charles A.; Sharma, Ambikeshwar) Multivariate interpolation and the Radon transform. II. Some further examples. (81m:41037)
- (with Micchelli, Charles A.; Sharma, Ambikeshwar) Multivariate interpolation and the Radon transform. (81m:41036)
- Chhabra, S. P. (with Joshi, B. K.) On integral equations involving Whittaker functions. (81d:45016)
- Čuhovskii, F. N. See Petrasen', P. V.; et al., (81m:92011)
- Džrbaijan, M. M. Representation and closure of some orthogonal systems. (Russian. Armenian and English summaries) (81j:42026)
- Falconer, K. J. The determination of a function from its projections. (81m:28005)
- Fefferman, Charles See Ash, J. Marshall; et al., (81f:42011)

- Gasper, George (with Trebels, Walter) Multiplier criteria of Hörmander type for Fourier series and applications to Jacobi series and Hankel transforms. (81j:42046)
- Goyal, S. P. Certain integral transforms and heat conduction in a truncated wedge of infinite height. (81a:80004)
- Havin, V. P. See Jörkcke, B., (81c:42021)
- Janson, Svante Singular integrals on local fields and generalizations to martingales. (81f:43011)
- Jeanquartier, Pierre Transformation de Mellin et développements asymptotiques. (81g:46049)
- Jones, Peter W. A constructive decomposition of $BMO(\mathbb{R})$ into L^∞ plus Hilbert transform of L^∞ . (81c:42017)
- Jones, R. L. See Ash, J. Marshall; et al., (81f:42011)
- Jörkcke, B. (with Havin, V. P.) The indeterminacy principle for operators that commute with a shift. I. (Russian. English summary) (81c:42021)
- Joshi, B. K. See Chhabra, S. P., (81d:45016)
- Kokilavilli, V. M. On Hardy's inequalities in weighted spaces. (Russian. Georgian and English summaries) (81b:26014)
- Koniet, I. M. See Lenjuk, M. P., (81c:73097)
- Lenjuk, M. P. (with Koniet, I. M.) Temperature fields in plates with finite slits. (Russian) (81c:73097)
- Lpzye, K. On the application of the Sommerfeld-Maluzhinetz transformation to some one-dimensional three-particle problems. (81j:81056)
- Louis, Alfred Picture reconstruction from projections in restricted range. (81b:6513)
- Luk-Ogrodnik, Barbara Application of the Čebyšev transform method to the approximation of functions of two variables. (Polish. Russian and English summaries) (81d:42014)
- Micchelli, Charles A. See Cavaretta, Alfred S., Jr.; et al., (81m:41036) and Cavaretta, Alfred S., Jr.; et al., (81m:41037)
- O'fanskij, V. P. (with Osadčenko, V. K.) Two-dimensional Fourier integrals containing Bessel functions. (Russian) (81f:42015)
- Osadčenko, V. K. See O'fanskij, V. P., (81f:42015)
- Pandey, Jagdish N. See Pathak, Ram S., (81b:46058) and Tiwari, U. N., (81m:46058)
- Pathak, Ram S. (with Pandey, Jagdish N.) The Kontorovich-Lebedev transformation of distributions. (81b:46058)
- Petrascen', P. V. (with Čuhovskii, F. N.; Šulpina, I. L.) The physical foundations of the computer simulation of X-ray traverse topographs. (81m:92011)
- Rao, G. L. N. The distributional F_1 -transform. (81c:44004)
- Rosenblum, Marvin (with Rovnyak, James) Change of variables formulas with Cayley inner functions. (81d:30053)
- Rovnyak, James See Rosenblum, Marvin, (81d:30053)
- Rusak, V. N. (with Šesko, M. A.) Approximation of singular integrals by singular integrals with polynomial density. (Russian. English summary) (81a:30020)
- Šesko, M. A. See Rusak, V. N., (81a:30020)
- Sharma, Ambikeshwar See Cavaretta, Alfred S., Jr.; et al., (81m:41036) and Cavaretta, Alfred S., Jr.; et al., (81m:41037)
- Sidi, Avram Extrapolation methods for oscillatory infinite integrals. (81m:40002)
- Sneddon, Ian N. Recent applications of integral transforms in the linear theory of elasticity. (81c:73023)
- Stens, R. L. (with Wehrens, M.) Legendre transform methods and best algebraic approximation. (81j:41013)
- Su, Wei Yi On an extremum problem for n -variable Walsh transforms. (Chinese. English summary) (81c:42050)
- Šulpina, I. L. See Petrasen', P. V.; et al., (81m:92011)
- Sundaram, Kokila On a representation of $W_{k,m}$ -transformable distributions. (81g:46051)
- Takano, Katsuo One-parameter semigroups of the Gaussian and Poisson integral transforms on the W^2 -space. (81a:47043)
- Theocaris, P. S. See Tsamasyphros, G. J., (81c:73006)
- Tiwari, A. K. A distributional generalized Stieltjes transformation. (81j:46065)
- Tiwari, U. N. (with Pandey, Jagdish N.) The Mehler-Fock transform of distributions. (81m:46058)
- Trebels, Walter See Gasper, George, (81j:42046)
- Theocaris, P. S. (with Theocaris, P. S.) On the solution of the sector problem. (French summary) (81c:73006)
- Varma, V. K. Solution of integral equations with hypergeometric functions as kernels. (81c:45013)
- Wehrens, M. See Stens, R. L., (81j:41013)

44A20 Transforms of special functions

- Chakrabarti, Aloknath On an expansion theorem and an integral transform associated with a condition of radiation. **81b:44009**
- Cotlar, Mischa (with Sadosky, Cora) Characterization of two measures satisfying the Riesz inequality for the Hilbert transform in L^2 . (Spanish summary) **81d:44004**
- Forté, F. See Lyle, W. D., Jr., **81b:44004**
- Kalla, Shyam Lal See Nieve de del Pino, M. E., **81b:44010**
- Lyle, W. D., Jr. (with Forté, F.) A useful property of the coefficients of a Walsh-Hadamard transform. **81b:44004**
- Maurya, R. P. See Prasad, Y. N., **81g:44008**
- Müller, C. (with Richberg, R.) Über die Radon-Transformation kreissymmetrischer Funktionen und ihre Beziehung zur Sommerfeldschen Theorie der Hankelfunktionen. (English summary) **81b:44006**
- Nieve de del Pino, M. E. (with Kalla, Shyam Lal) Fractional integration operator that involve the H -function of two variables. (Spanish) **81b:44010**
- Prasad, Y. N. (with Maurya, R. P.) Some theorems on a multidimensional integral transformation. **81g:44008**
- Rao, G. L. N. A complex inversion theorem for a distributional F_1 -transform. **81m:44002**
- The distributional F_1 -transform. **81c:44004**
- Richberg, R. See Müller, C., **81b:44006**
- Sadosky, Cora See Cotlar, Mischa, **81d:44004**

Shah, Manilal A property of generalized integral transform of two variables. Synopsis. 81d:44005

Sharma, B. L. Integrals involving Legendre and G-functions. 81j:44008

secondary classifications:

Boyd, James N. (with Raychowdhury, P. N.) Improper integrals and Laplace transforms from generating functions. (81d:44002)

Chamyyou, J. M. F. Numerical evaluation of a solution of a special mixed-type differential-difference equation. (81m:65189)

Pandey, R. N. See Singh, Ramji. (81a:33021)

Prasad, Y. N. (with Singh, Awadhesh K.) A new generalized function of r variables as kernel of integral transforms. (Turkish summary) (81h:33006)

Raychowdhury, P. N. See Boyd, James N. (81d:44002)

Singh, Awadhesh K. See Prasad, Y. N. (81h:33006)

Singh, Ramji (with Pandey, R. N.) Integral representation for the generalized polynomial $R_n(x, y)$. (81a:33021)

Srivastava, H. S. P. Some relations involving the generalized associated Legendre functions and the H -function of two variables. (81e:33011)

Sub-Sizomenko, Ju. A. Inversion of an integral operator by the method of expansion with respect to orthogonal Watson operators. (Russian) (81f:44011)

44A30 Multiple transforms

Ahuja, Gopi On generalized operators of two variables. 81a:44005

Bragimov, F. I. Convergence distance of an improper multiple integral of Laplace-Stieltjes type. (Russian, Azerbaijani and English summaries) 81b:44011

Pradhan, K. M. Certain double integral transformations of generalized hypergeometric polynomials. (Hindi, English summary) 81e:44006

Prasad, Y. N. (with Singh, S. N.) On a generalized multiple transform and its basic properties. 81m:44003

Selvaggi, Renata (with Sisto, Irene) Regularity of certain integral transforms relative to domains of class C^1 . (Italian, English summary) 81b:44012

Singh, S. N. See Prasad, Y. N. 81m:44003

Sisto, Irene See Selvaggi, Renata. 81b:44012

Smyšljajeva, L. G. The Laplace transforms of derivatives of functions of several variables. (Russian) 81b:44013

secondary classifications:

Joshi, C. M. (with Prajapat, M. L.) A triple integral transformation and certain hypergeometric expansions. (81f:42020)

Karmakar, Sudhangshu B. Steady-state response of a nonlinear system. (81j:45004)

Prajapat, M. L. See Joshi, C. M. (81a:33002)

44A35 Convolution

Ahina, Claudi A characterization of the convolution. (Spanish) 81m:44004

Boehme, T. K. Convolution factoring on the half-line. 81f:44007

Sampson, G. More on weak estimates for oscillating kernels. 81h:44004a
More on weak estimates of oscillating kernels. II. 81h:44004b

secondary classifications:

Bingham, Nicholas H. Integrability theorems for convolutions. (81g:40002)

Caldéron, Calixto P. On a singular integral. (81f:42020)

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Arpač, Takač The field of exponential operators. (Serbo-Croatian, English summary) 81e:44007

Bleyer, A. Positive approximation of operator functions. 81d:44005

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Dobrowolny, V. On fundamentals of a general operational calculus. 81g:44010

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Berg, Lothar Noncommutative operations with distributions. (81d:46046)

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McBride, Adam C. ★Fractional calculus and integral transforms of generalized functions. (81d:46045)

Orton, Marion The generalized Abel equations for Schwartz distributions. (81k:46048)

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Schott, Dieter Zur Lösung linearer Gleichungen mit nichtvertauschbaren Operatoren. (81a:47016)

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Wu, Xue Mou Some boundary properties and imbedding inequalities of analytic functions. I. (Chinese, English summary) 81j:44010a

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Elfmov, A. V. (with Zolotareva, S. Ju.) Multiplicative Fourier integral and its discrete analogues. (Russian, English summary) (81j:42045)

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Fényes, Tomáš (with Kosik, P.) The algebraic derivative and integral in the discrete operational calculus. II. 81b:44017

Hallmark, James (with Eisenfeld, Jerome) Separation and monotonicity results for the roots of the moment problem. 81h:44005

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Shonkwiler, R. See Faulkner, Gary D. (81a:46030)

44A99 Miscellaneous topics

Berg, Christian (with Christensen, Jens Peter Reus; Jensen, Christian U.) A remark on the multidimensional moment problem. 81e:44008

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 Rutelli, Giovanni Integral transforms in the study of transitory phenomena of physical systems. (Italian. English summary) (81b:44001)
 Senickii, Ju. E. A generalized method of finite integral transformations in problems of the dynamic theory of elasticity. (Russian) (81j:73034)

45-XX INTEGRAL EQUATIONS

- 45-01 Elementary exposition, textbooks
 45-02 Advanced exposition (research surveys, monographs, etc.)
 45-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- Baumgärtel, H. (with Obermann, P.) Betrachtungen zu Gauß aus der Sicht der Mathematischen Physik. (81f:01013)
 (Gauß, Carl Friedrich) See Baumgärtel, H.; et al., (81f:01013)
 Obermann, P. See Baumgärtel, H., (81f:01013)

- 45-04 Explicit machine computation and programs (not the theory of computation or programming)
 45-06 Proceedings, conferences, etc.

- (Andersen, Robert S.) See Application and numerical solution of integral equations. 81f:45001
 (de Hoog, Frank R.) See Application and numerical solution of integral equations. 81f:45001
 (Lukas, Mark A.) See Application and numerical solution of integral equations. 81f:45001
 Application and numerical solution of integral equations ★The application and numerical solution of integral equations. 81f:45001
 Camberra ★The application and numerical solution of integral equations. 81f:45001
 Integral equations ★The application and numerical solution of integral equations. 81f:45001

Seminar:

- Application and Numerical Solution of Integral Equations ★The application and numerical solution of integral equations. 81f:45001

secondary classifications:

- (Liz, Antonio Fernandes) See Functional differential equations and bifurcation. (81j:34004)
 (Sernstnev, A. N.) See Constructive theory of functions and functional analysis. (81j:46002)
 Bifurcation ★Functional differential equations and bifurcation. (81j:34004)
 Conference:
 Functional Differential Equations and Bifurcation ★Functional differential equations and bifurcation. (81j:34004)
 Constructive theory of functions and functional analysis ★Конструктивная теория функций и функциональный анализ. Вып. 2. (Russian) [Constructive theory of functions and functional analysis. No. 2] (81j:46002)
 Differential equations ★Functional differential equations and bifurcation. (81j:34004)
 Functional analysis ★Конструктивная теория функций и функциональный анализ. Вып. 2. (Russian) [Constructive theory of functions and functional analysis. No. 2] (81j:46002)
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- Golberg, Michael A. Boundary and initial value methods for solving Fredholm equations with semidegenerate kernels. 81b:45001
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 Rall, L. B. Resolvent kernels of Green's function kernels and other finite-rank modifications of Fredholm and Volterra kernels. 81k:45001
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- Anderson, Brian D. O. (with Kailath, Thomas) Fast algorithms for the integral equations of the inverse scattering problem. (81k:81067)
 Asanov, A. Uniqueness of the solution of systems of convolution-type Volterra integral equations of the first kind. (Russian) (81m:45002)
 Blum, James L. Integral equations for electromagnetic scattering by wide scatterers. (81k:78011)

- Cade, R. The integral equation solution of two-dimensional electrostatic problems involving circular cylinders. (81e:78018)
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 Hovener, J. W. Reduction of the standard problem in radiative transfer for a medium of finite optical thickness. (81a:85007)
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 Singh, Brij M. (with Dhalwal, Ranjit S.; Rokne, Jon) An axisymmetric external crack problem for an infinite medium with a cylindrical inclusion. (81j:73076)

- Stenger, Frank (with Johnson, Steven A.) Ultrasonic transmission tomography based on the inversion of the Helmholtz wave equation for plane and spherical wave insonification. (81d:76083)
- Urell, F. On the exterior problems of acoustics. II. (81g:76092)
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- Vermo, R. U. Determinant theory of singular integral equations. (81m:45007)
- Wilson, J. H. Solution of integral equation important in signal processing of radar and sonar hydrophone array outputs. (81j:76075)
- Yan, Tian Quan An optimally convergent algorithm for Fredholm integral equations $AX = Y$ of the first kind. (Chinese. English summary) (81j:45020)
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- Plimley, George H. The nonoccurrence of secondary bifurcation with Hammerstein operators. 81f:45005
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- Fe'dman, I. A. Finiteness of the discrete spectrum of a characteristic equation of the theory of radiation transfer with a Hölder indicatrix. (Russian) (81f:85002)
- Kirichenko, A. M. See Podil'čuk, Ju. N., (81k:73009)
- Kushner, H. B. (with Meisner, Morris) Eigenfunctions of expected value operators in the Wishart distribution. (81f:62091)
- Kushner, H. B. A characteristic equation of the theory of polarized radiation transfer. (Russian) (81g:85009)
- Meisner, Morris See Kushner, H. B., (81f:62091)
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- Sobolev, I. The existence of a second eigenvalue of a linear integral operator with a nonnegative kernel. (Russian) (81c:47051)

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- Ahusov, A. Uniqueness of the solution of systems of convolution-type Volterra integral equations of the first kind. (Russian) 81m:45002
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- Jordan, G. S. (with Wheeler, Robert L.) Rates of decay of resolvents of Volterra equations with certain nonintegrable kernels. 81d:45003
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- Lavrent'ev, M. M. Two directions in the theory of ill-posed problems of mathematical physics. (Russian) 81g:45005
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- Londen, Stig-Olof On a Volterra integro-differential equation with L^∞ -perturbation and noncountable zero-set of the transformed kernel. 81d:45004
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- Wiener, Kiam Über die Eindeutigkeit von Lösungen linearer Volterra'scher Integralgleichungen. 81f:45008
- secondary classifications:
- Andersen, Robert S. On the use of linear functionals for Abel-type integral equations in applications. (81h:45026)
- Bainov, D. D. See Sarafova, G. H., (81c:45018)
- Brewer, Dennis W. A nonlinear contraction semigroup for a functional differential equation. (81h:47057)
- Burton, T. A. Uniform stabilities for Volterra equations. (81f:45015)
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- Crouch, Peter E. Realizations of a single Volterra kernel. (81j:93018)
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- Davis, Paul L. On the speed of propagation of solutions of integro-differential equations. (81h:45022)
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- Djadjek, Ju. A. The dependence of the solutions of an operator equation of Volterra type on the parameter. (Russian) (81m:34085)
- Gheorghiu, N. (with Turinici, Mihai) Équations intégrales dans les espaces localement convexes. (81c:45001)
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- (with Stecher, M.) Properties and applications of the resolvent operator to a Volterra integral equation in Hilbert space. (81c:45029)
- A perturbation of an abstract Volterra equation. (81m:45021)
- Konstantinov, Mihail M. (with Peeva, M. C.) A functional inequality and its application in the theory of integral equations. (Bulgarian. Russian and English summaries) (81k:45010)
- Lakshmikantham, V. Existence and comparison results for Volterra integral equations in a Banach space. (81b:45026)
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- Levin, Jacob J. Some perturbation problems for Volterra equations. (81m:45020)
- Lin, Peter A survey of methods for the solution of Volterra integral equations of the first kind. (81m:65199)
- Maščenko, I. P. (with Čurik, F. S.) Solution of an integral equation encountered in plasticity theory. (Russian) (81g:73045)
- Michel, Anthony N. See Miller, Richard K., (81j:93043)
- Miller, Richard K. (with Michel, Anthony N.) On the response of nonlinear multivariable interconnected feedback systems to periodic input signals. (81j:93043)
- Nobel, John A. A nonlinear hyperbolic Volterra equation occurring in viscoelastic motion. (81b:73019)
- Peeva, M. C. See Konstantinov, Mihail M., (81k:45010)
- Pobyvanc, I. P. On an integral equation of Volterra type and asymptotic equivalences. (Russian) (81j:45023)
- Sarafova, G. H. (with Bainov, D. D.) Application of the method of two-sided approximations to finding periodic solutions of an integro-differential equation of Volterra type. (Russian) (81c:45018)
- Schiaffino, Andrea On a Volterra diffusion system. (Italian summary) (81b:35046)
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- Ten Men Jan Block method for solving two-dimensional Volterra integral equations of the first kind. (Russian) (81c:45021)
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- Văță, P. Convergence theorems of some numerical approximation schemes for the class of nonlinear integral equations. (Romanian and French summaries) (81b:65135)
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- Vaughn, Randy Criteria for the existence and comparison of solutions to nonlinear Volterra integral equations in Banach space. (81c:45029)
- See also Vatsala, A. S., (81b:34006)
- Wagner, Eberhard Zur Asymptotik der Lösungen linearer Volterra'scher Integralgleichungssysteme zweiter Art vom Faltungstyp mit nichtnegativen Kernen. (81c:45025)
- Westreich, David See Cablon, Baruch, (81c:45020)

Wheeler, Robert L. Asymptotic behavior of solutions of linear Volterra integro-differential equations in Hilbert space. (81d:45018)

45Exx Singular integral equations [See also 30E20, 30E25, 44A15, 44A35.]

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Petrila, Thus Une nouvelle méthode pour l'étude de l'écoulement produit par le déplacement d'un système de n profils mobiles dans un fluide idéal. (81g:76024)

Pokazeev, V. I. A class of Appell functions for doubly periodic groups. (Russian) (81e:30055)

Pröbldorf, Siegfried Über die näherungsweise Lösung von singulären Integralgleichungen. (81m:45018)

Seleznev, V. A. Linear singular equations on quasiconformal contours and the problem of linear conjugation for a holomorphic vector on closed Riemann surfaces. (Russian) (81i:30081)

Soldatov, A. P. Singular integral operators on the line. (Russian) (81b:47062)

Tang, Ren Ji (with Wang, Kai) Griffith crack problem under asymmetrical load. (Chinese. English summary) (81g:73061)

Theocaris, P. S. See Ioakimidis, N. I., (81g:65178)

Tihonenko, M. Ja. Approximate methods in the theory of boundary value problems with shift. (Russian) (81h:30048)

Walton, Jay R. Systems of generalized Abel integral equations with applications to simultaneous dual relations. (81j:45011)

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45E10 Integral equations of the convolution type (Abel, Picard, Toeplitz and Wiener-Hopf type) [See also 47B35.]

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von Grudzinski, Olaf Examples of solvable and nonsolvable convolution equations in \mathcal{H}_p , $p > 1$. 81h:45009

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Levin, Jacob J. Tauberian curves and integral equations. 81a:45007

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Meister, E. (with Speck, F.-O.) Some multidimensional Wiener-Hopf equations with applications. 81e:45004

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Berger, Marc A. Positive kernels and stochastic integrals. (81e:60073)

Chen, M. Differential-difference equations for the radial distribution function of hard rods and hard spheres under Percus-Yevick approximation. (81a:82037)

Perturbative solution of the Percus-Yevick integral equation for a general class of intermolecular potential. (81a:82029)

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Grossman, Stanley I. Some notes on the resolvents of Volterra integral equations. (81b:45001)

- Hayashi, Yoshio (with Hurd, R. A.) On a certain integral equation of Fredholm of the first kind and a related singular integral equation. (81d:45002)
- Hurd, R. A. See Hayashi, Yoshio, (81d:45002)
- Krupnik, N. Ja. See Gohberg, Israel, (81d:45010)
- Mallik, T. W. Wiener-Hopf factorizations: computational methods for a class of matrix functions. (81i:45020)
- Radchenko, T. N. See Rogozin, V. S., (81f:45008)
- Rogozin, V. S. (with Radchenko, T. N.) An equation of convolution type and singular integral equations in the exceptional case. (Russian) (81f:45008)
- Sastri, R. G. S. See Starostenko, V. I., (81d:86010)
- Schuppel, B. See Gohberg, Israel; et al., (81d:45010)
- Starostenko, V. I. (with Sastri, R. G. S.) The regularizing solution of geophysical three-dimensional problems expressed by integral equations of the first kind of convolution type. (Russian) (81d:86010)

45E99 None of the above, but in this section

- Bilman, B. M. A class of singular two-dimensional integral equations. (Russian. Tajiki summary) 81i:45012
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- Ishanderov, B. B. Investigation of a class of singular integral equations with shift. (Russian) (See 80d:00021)
- Kartaleva, L. V. See Rogozin, V. S., 81g:45006
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- Conditions for Noethericity and a formula for the index of a class of singular integral equations over a circular domain. (Russian) 81k:45009
- Plešinskii, N. B. See Čibrikova, L. I., 81h:45010
- Rogozin, V. S. (with Kartaleva, L. V.) Corrections to our article: "A singular equation in spaces of test functions and generalized functions on a closed contour in the exceptional case" [Izv. Vysš. Učebn. Zaved. Matematika 1975, no. 6(157), 114-123; MR 53 #3620]. (Russian) 81g:45006
- Salaev, V. V. See Guseinov, E. G., 81h:45011
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- Aleksandrov, V. M. (with Kovalenko, E. V.) A class of integral equations of mixed problems of continuum mechanics. (Russian) (81k:73013)
- Babesko, V. A. See Vorovik, I. I., (81b:73002)
- Babojan, A. A. (with Mkrtčyan, A. M.) Torsion of rods with cross sections in the form of combinations of rectangles and ring sectors. (Russian. Armenian and English summaries) (81j:73056)
- Beisavi, Ju. A. Solution of the fundamental three-dimensional dynamical problem of elasticity theory with mixed boundary conditions. (Russian) (81c:73007)
- Clancey, Kevin (with Gohberg, Israel) Localization of singular integral operators. (81c:45027)
- Das, Rabindra Nath Exact solution of a basic equation in finite atmosphere by the method of Laplace transform and linear singular operators. (81m:85006a)
- Exact solution of a simple time-dependent integro-differential equation by the method of Laplace transform and the theory of linear singular operators. (81m:85006b)
- Gabduhaev, B. G. Finite-dimensional approximations of singular integrals and direct methods for solving singular integral and integro-differential equations. (Russian) (81m:45019)
- Gohberg, Israel See Clancey, Kevin, (81c:45027)
- Hvoles, A. A. Two-dimensional singular integral equations in $C_0(M)$ spaces. (Russian. Georgian and English summaries) (81i:45021)
- Kovalenko, E. V. See Aleksandrov, V. M., (81k:73013)
- Lebedev, Yu. N. See Poliščuk, I. M., (81g:78032)
- Mkrtčyan, A. M. See Babojan, A. A., (81j:73056)
- Pilali, V. S. A priori estimates for a class of one-dimensional singular integral operators with discontinuous coefficients. (Russian) (81k:47072)
- Poliščuk, I. M. (with Lebedev, Yu. N.) Some properties of the problem of diffraction at (or from) a strip. (81g:78032)
- Rjatin, A. G. See Thomirov, N. B., (81m:45024)
- Sun, Ji Guang Singular integral equations on a closed smooth manifold. (Chinese. English summary) (81f:32031)
- Thomirov, N. B. (with Rjatin, A. G.) ★Линейные положительные операторы и сингулярные интегралы. (Russian) [Linear positive operators and singular integrals] (81m:45024)
- Torvajnen, N. E. Integral representations of holomorphic functions by holomorphic densities and their applications. (81g:30054)
- Varma, V. K. Solution of integral equations with hypergeometric functions as kernels. (81c:45013)
- Vorovik, I. I. (with Babesko, V. A.) ★Динамические смешанные задачи теории упругости для неклассических областей. (Russian) [Dynamic mixed problems of the theory of elasticity for nonclassical domains] (81b:73002)

45Fxx Systems of linear integral equations

45F05 Systems of nonsingular linear integral equations

- Kordadze, R. A. A class of infinite systems of Fredholm type integral equations. (Russian) 81h:45013
- Kramosel'skii, M. A. (with Meerov, M. V.) Absolute positivity of linear systems. 81c:45012
- Meerov, M. V. See Kramosel'skii, M. A., 81c:45012
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- Arizany, I. S. Symmetric integral equations of two-dimensional elasticity theory. (Russian) (81g:73015)
- Garkula, V. I. An approach to the solution of equations of the first kind with a symmetric operator of Fredholm type. (Russian) (81i:45001)
- Gohberg, Israel (with Krupnik, N. Ja.) On composite linear singular integral operators. (See 80c:00006)
- Krupnik, N. Ja. See Gohberg, Israel, (See 80c:00006)
- Skakauskas, V. The existence and uniqueness of the solution for a system of integro-differential equations. (Russian. Lithuanian and English summaries) (81c:45023)

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- Goyal, A. N. Dual integral equations involving the generalized Fox function as the kernel. 81m:45009
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- Kumbhat, R. K. On triple series equations. (Hindi. English summary) 81f:45010
- Lowengrub, M. (with Walton, Jay R.) Systems of generalized Abel equations. 81j:45010
- McGruid, Adam C. Solution of dual integral equations of Titchmarsh type using generalized functions. 81c:45007
- Pu, S. L. See Hussain, M. A., 81b:45007
- Singh, Brj M. (with Dhaliwal, Ranjit S.) Triple trigonometric integral equations with an application. 81f:45011
- Singh, V. B. See Dwivedi, A. P., 81c:45006
- Walton, Jay R. Systems of generalized Abel integral equations with applications to simultaneous dual relations. 81j:45011
- See also Lowengrub, M., 81j:45010

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- Aly, J. J. Electrodynamics of disk accretion onto magnetic neutron star. (81d:85003)
- Darling, Byron T. (with Imbeau, Jacques A.) De nouvelles équations intégrales pour l'étude de la radiation électromagnétique dans les enceintes. (English summary) (81g:78010)
- Imbeau, Jacques A. See Darling, Byron T., (81g:78010)
- Morioka, Shigeki Steady two-dimensional jet-flow of a dispersive compressible fluid. (81c:76055)
- Naylor, D. On an integral transform of the Mellin type. (81c:44008)
- Ponomarenko, S. P. See Virčenko, N. O., (81a:44003)
- Virčenko, N. O. (with Ponomarenko, S. P.) Properties of the generalized Mehler-Fock integral transformation and its application to the solution of dual-integral equations. (Russian. English summary) (81a:44003)

45F15 Systems of singular linear integral equations

- Džuraev, A. On the theory of systems of singular integral equations over a bounded plane domain. (Russian) 81f:45012
- On a class of systems of singular integral equations on a bounded domain. 81c:45008
- Kadulin, V. P. Solution of singular integral equations with complex conjugate unknowns by the reduction method. (Russian) 81m:45010
- Kreß, Rainer On the existence of a solution to a singular integral equation in electromagnetic reflection. 81m:45011
- Sahnovik, L. A. Systems of equations with difference kernels. (Russian) 81a:45008

secondary classifications:

- Burniston, E. E. See Slewert, C. E., (81b:76049)
- Gabedava, T. V. Approximate solution of systems of singular integral equations by the Galerkin method. (Russian) (81b:65123)
- Savenkov, V. A. A mixed problem of elasticity theory for an anisotropic plane with cuts on the real axis. (Russian) (81m:73022)
- Slewert, C. E. (with Burniston, E. E.) The H matrix for time-dependent problems in rarefied gas dynamics. (German summary) (81b:76049)
- Wickel, W. Ein Integralgleichungssystem zur Neumannschen Randwertaufgabe für eine Gleichung 4. Ordnung. (81g:35019)

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secondary classifications:

- Dil'muradov, N. See Talev, Z., (81m:45008)
- Kelley, C. T. A comparison of iteration schemes for Chandrasekhar H -equations in multigroup neutron transport. (81a:82059)
- Szarski, Jacek Comparison theorems for infinite systems of differential-functional

equations and strongly coupled infinite systems of first-order partial differential equations. (81f:35115)

Talev, Z. (with Dil'muradov, N.) A singular operator equation with Carleman shift of order two in a normed ring with involution. (Russian) (81m:45008)

45Gxx Nonlinear integral equations [See also 47Hxx.]

45G05 Singular nonlinear integral equations

Frenkin, A. R. See Gostev, V. B.; et al., 81h:45014

Gostev, V. B. (with Mineev, V. S.; Frenkin, A. R.) Exact solution of functional equations of a special form. (Russian) 81h:45014

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Husnutdinova, N. B. See Husnutdinov, R. S., 81d:45015

Mehlier, A. A. Existence and uniqueness of the solution of a class of nonlinear singular integral equations. (Russian) 81h:45015

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Noella, Silvio Concerning a nonlinear integral equation with a singular kernel and mean value. (Italian. English summary) 81m:45012

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secondary classifications:

Friedman, Mark J. Mathematical study of the nonlinear singular integral magnetic field equation. I. (81m:78006)

Guseinov, A. I. (with Muhtarov, H. S.) Application of the monotone operator method to a class of integral equations. (Russian. Azerbaijani and English summaries) (81f:45003)

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Sečuk, V. N. See Zolotarevskii, V. A., (81m:65204)

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45G10 Other nonlinear integral equations

Atlaev, S. A nonlocal existence and uniqueness theorem for a class of Volterra integro-functional equations. (Russian. Turkmen and English summaries) 81g:45007

Brandhofe, Thomas (with Davies, P. Laurie) On a functional equation in the theory of linear statistics. 81f:45013

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Elbakidze, N. V. An equation of Hammerstein type. (Russian. Georgian and English summaries) 81e:45013

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Gripenberg, Gustaf On nonlinear Volterra equations with nonintegrable kernels. 81h:45013

Guo, Da Jun The number of positive solutions of Hammerstein nonlinear integral equations. (Chinese. English summary) 81h:45008

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Konstantinov, Mihail M. (with Peeva, M. C.) A functional inequality and its application in the theory of integral equations. (Bulgarian. Russian and English summaries) 81k:45010

Krasnosel'skii, M. A. (with Pokrovskii, A. V.) Equations with discontinuous nonlinearities. (Russian) 81c:45010

Krein, M. G. Nonlinear integral equations that play a role in the theory of Wiener-Hopf equations. II. (Russian) 81h:45017

Kudrewicz, Jacek Generalized Lindstedt's method. 81f:45014

Ljutenko, T. V. On applications of a class of nonlinear integral equations. (Russian. English summary) 81k:45011

Maierova, N. L. See Zabrejko, P. P., 81c:45011

Mawhin, Jean (with Willem, Michel) Compact perturbations of some nonlinear Hammerstein equations. 81k:45012

Morchole, Jaroslav Integral inequalities for Volterra equation in the Banach space with cone. 81j:45013

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Politiukov, V. P. Method of solution of nonlinear integral Hammerstein equations. (Russian) 81i:45014

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Rappoport, Ju. M. Nonlinear integral equations in perfect spaces. (Russian) 81g:45009

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Zabrejko, P. P. (with Maierova, N. L.) Solvability of the nonlinear Uryson integral equation. (Russian) 81c:45011

secondary classifications:

Decewicz, Grzegorz Noncontinuous and nonlinear Hilbert-Haseman problem for a system of arbitrary power. (81i:30073)

Ehrlich, M. Über die Lösbarkeit einer nichtlinearen Integralgleichung in nicht lokalkonvexen Räumen. (81e:45028)

Fliess, Michel Séries formelles non commutatives et automatique non linéaire. (81g:93040)

Ito, Ichiro On the existence and uniqueness of solutions of stochastic integral equations of the Volterra type. (81b:60061)

Klimov, V. S. One-dimensional boundary value problems with two solutions. (Russian) (81d:47034)

Kurčatov, V. A. Approximate solution of functional equations with nondifferentiable operators by the linearization method. I. (Russian) (81e:65028)

Pimbley, George H. The nonoccurrence of secondary bifurcation with Hammerstein operators. (81f:45005)

Pluciennik, Ryszard An application of modular spaces to integral equations of Uryson type. (81d:45022)

Staffans, Olof J. A Volterra equation with square integrable solution. (81d:45007)

On a nonlinear hyperbolic Volterra equation. (81j:45018)

Zeidler, Eberhard Lectures on Lyusternik-Schnirelman theory for indefinite nonlinear eigenvalue problems and its applications. (81h:58025)

45H05 Miscellaneous special kernels [See also 44A15.]

Castro, Alfonso Hammerstein integral equations with indefinite kernel. 81e:45014

Chhabra, S. P. (with Joshi, B. K.) On integral equations involving Whittaker functions. 81d:45016

(with Joshi, B. K.) An integral equation with Meijer's G-function as its kernel. (Hindi. English summary) 81e:45015

Dhaliwal, Ranjit S. See Singh, Brij M., 81b:45011

Hill, James M. An integral equation arising in double diffusion theory. 81i:45015

Joshi, B. K. See Chhabra, S. P., 81d:45016 and Chhabra, S. P., 81e:45015

Kadob'janskii, R. M. Representation of the solution of the Cauchy problem for certain integro-differential equations in the form of an integral with respect to a Wiener measure. (Russian. English summary) 81c:45012

Kashyap, N. K. See Prabhakar, T. R., 81b:45010

Prabhakar, T. R. (with Kashyap, N. K.) A new class of hypergeometric integral equations. 81b:45010

Singh, Brij M. (with Dhaliwal, Ranjit S.) Dual integral equations with a trigonometric kernel. 81b:45011

Varma, V. K. Solution of integral equations with hypergeometric functions as kernels. 81c:45013

secondary classifications:

Bhise, V. M. (with Dighe, Madhavi) On composition of integral operators with Fourier-type kernels. (81i:45025)

Bloom, Frederick Bounds for solutions to a class of integro-differential equations associated with a theory of rigid nonconducting material dielectrics. (81a:78004)

Dighe, Madhavi See Bhise, V. M., (81i:45025)

Goyal, A. N. Dual integral equations involving the generalized Fox function as the kernel. (81m:45009)

Imanaliyev, M. I. (with Pankov, P. S.) Generalized solution of an integral equation of the first kind. (Russian) (81f:45002)

Jentsch, Lothar Zur Theorie der Wärmespannungen in Bimetallkörpern. (81h:73087)

Pankov, P. S. See Imanaliyev, M. I., (81f:45002)

45J05 Integro-ordinary differential equations

Angelov, V. G. (with Bañov, D. D.) Existence and uniqueness of the solution of the generalized initial Cauchy problem for some nonlinear integro-differential equations in a Banach space. (Russian) 81c:45014

Bañov, D. D. (with Miluševa, S. D.) Application of the averaging method for the solution of multipoint boundary value problems with a nonlinear boundary condition for a class of integro-differential equations containing multiple integrals. (Russian) 81c:45015

(with Miluševa, S. D.) Application of the averaging method for the solution of multipoint boundary value problems with a nonlinear boundary condition for a class of integro-differential equations that contain multiple integrals. (Russian) 81h:45012

See also Miluševa, S. D., 81b:45013; Sarafova, G. H., 81b:45022; Angelov, V. G., 81c:45014; Hristova, S. G., 81c:45017; Nikolova, T. S., 81c:45017; Sarafova, G. H., 81c:45018; Nikolova, T. S., 81d:45016 and Sarafova, G. H., 81d:45017

Burton, T. A. Limit sets of functional differential equations. 81m:45014

Uniform stabilities for Volterra equations. 81f:45015

An integro-differential equation. 81h:45018

Bykadorov, Ju. A. On a differential-integral operator. (Russian) 81m:45015

Carr, Ralph W. (with Hannigan, Kenneth B.) A nonhomogeneous integro-differential equation in Hilbert space. 81b:45014

Chen, Goong (with Grimmer, Ronald) Well-posedness and approximations of linear Volterra integro-differential equations in Banach spaces. 81b:45015

Datusašvili, G. A. The Cauchy problem for a higher-order integro-differential equation with a kernel depending on the difference of arguments in a half-space. (Russian) 81c:45016

Dudka, N. A. Some integro-differential inequalities with a transformed argument. (Russian) 81b:45016

Falin, A. I. See Hapaev, M. M., 81b:45019

Gusnin, A. A. Asymptotic behavior of the solution of the Cauchy problem for degenerate integro-differential equations. (Russian) 81b:45017

Grace, S. R. (with Lalli, B. S.) Asymptotic behaviour of certain second order

- integro-differential equations. **81b:45014**
- Grimmer, Ronald. See Chen, Goong. **81b:45015**
- Hannagan, Kenneth B. An integro-differential equation with parameter. **81b:45018**
- A uniform approximation for an integro-differential equation with parameter. **81f:45016**
- See also Carr, Ralph W., **81b:45014**
- Hajnev, M. M. (with Fain, A. I.) Investigation of stability in systems of integro-differential equations by the averaging method. (Russian) **81b:45019**
- Hristova, S. G. (with Bainov, D. D.) Globally bounded solutions of systems of integro-differential equations of superneutral type. (Russian. Bulgarian and English summaries) **81c:45017**
- Iskandarov, S. See Ved', Ju. A., **81b:45015**
- Jordan, G. S. Some nonlinear singularly perturbed Volterra integro-differential equations. **81c:45016**
- Karimov, A. U. (with Koltunov, S. A.; Puhareva, N. V.) Generalization of Poincaré's method to some classes of integro-differential equations. (Russian) **81b:45019**
- Koltunov, S. A. See Karimov, A. U.; et al., **81b:45019**
- Kurganov, T. K. Asymptotic expansion of the solution of integro-differential equations by the multiscale method. (Russian) **81c:45018**
- Lalli, B. S. See Grace, S. R., **81b:45014**
- Landman, Kerry A. Bifurcation and stability theory of periodic solutions for integro-differential equations. **81d:45017**
- Leonov, G. A. (with Smirnova, V. B.) The reduction method for integro-differential equations. (Russian) **81f:45014**
- Lohor, V. V. See Vasil'ev, V. V., **81c:45019**
- Luca, N. Integro-differential systems with infinitely many delays. **81a:45009**
- Mellier, T. K. See Škil', M. I., **81c:45020**
- Mihuleva, S. D. (with Bainov, D. D.) Application of the averaging method for the solution of multipoint boundary value problems with a nonlinear boundary condition for systems of differential and integro-differential equations that are not solved for the derivative. (Russian) **81b:45013**
- See also Bainov, D. D., **81b:45012** and Bainov, D. D., **81c:45015**
- Nen, John C. Large populations of coupled chemical oscillators. **81b:45020**
- Nikolova, T. S. (with Bainov, D. D.) Theorems on the existence and uniqueness of the solution of certain systems of integro-differential equations of superneutral type. (Russian) **81b:45016**
- (with Bainov, D. D.) A problem for extremal integro-differential equations with deviating argument of superneutral type. (Russian. Romanian summary) **81c:45017**
- Nurizhanov, O. D. See Samoilenko, A. M., **81b:45021**
- Pittman, Franz. On the solution of linear integro-differential equations with degenerate kernels. **81b:45020**
- Puhareva, N. V. See Karimov, A. U.; et al., **81b:45019**
- Rodionov, A. M. An application of integro-differential equations in the problem of synthesizing linear optimal systems with delay. (Russian) **81c:45019**
- Samoilenko, A. M. (with Nurizhanov, O. D.) The Bubnov-Galerkin method for construction of periodic solutions of a Volterra type integro-differential equation. (Russian) **81b:45021**
- Sarafova, G. H. (with Bainov, D. D.) Application of the method of two-sided approximations to the search for periodic solutions of the integro-differential equation of Volterra type. (Russian) **81b:45017**
- (with Bainov, D. D.) Application of the method of two-sided approximations to finding periodic solutions of an integro-differential equation of Volterra type. (Russian) **81c:45018**
- (with Bainov, D. D.) The reduction principle for a class of integro-differential equations. (Russian) **81b:45022**
- Shuppon, Henry C. Stability of periodic solutions of nonlinear integro-differential systems. **81f:45017**
- Škil', M. I. (with Mellier, T. K.) Construction of the asymptotic solution for a system of second-order linear integro-differential equations of fractional rank. (Russian. English summary) **81c:45020**
- Smirnova, V. B. See Leonov, G. A., **81f:45014**
- Sajatnovskaja, I. N. See Vasil'ev, V. V., **81b:45016**
- Staffans, Olof J. A nonlinear Volterra equation with rapidly decaying solutions. **81b:45023**
- Steck, Harlan W. Periodic solutions to a nonlinear Volterra integro-differential equation. **81f:45018**
- Vasil'ev, V. V. (with Lobov, V. V.) Fundamental solutions of a system of linear homogeneous integro-differential equations. (Russian) **81c:45019**
- (with Sajatnovskaja, I. N.) Application of the Hilbert-Schmidt theory to the solution of linear integro-differential equations of a certain class. (Russian) **81b:45016**
- Ved', Ju. A. An asymptotic problem for nonlinear integro-differential equations of the Volterra type. (Russian) **81f:45019**
- (with Iskandarov, S.) Characteristic singularities of integro-differential systems of Volterra type. (Russian) **81b:45015**
- Wendt, Werner. Über eine eindimensionale lineare Integro-Differentialgleichung und deren approximative Lösung mit dem Differenzenverfahren. (Russian, English and French summaries) **81b:45016**
- secondary classifications:
- Agachev, Ju. R. Spline-methods for solving differential and integro-differential equations. (Russian) **81b:65120**
- Auzjak, A. G. Synthesis of optimal control of a solid with a cavity partially filled with a fluid, with incomplete measurement. (Russian) **81b:93032**
- Barbu, Viorel (with Da Prato, Giuseppe; Iannelli, Mimmo) Stability results for some integro-differential equations of hyperbolic type in Hilbert space. **81f:45025**
- Becker, Ronald I. Periodic solutions of semilinear functional differential equations in a Hilbert space. **81b:34110**
- Berezovskaja, G. M. (with Berezovskij, M. I.) On asymptotic representation of Λ -basis functions. (Russian) **81b:47048**
- Berezovskij, M. I. See Berezovskaja, G. M., **81b:47048**
- Bugir, M. K. A remark on local criteria for nonoscillation of systems of equations. (Russian. English summary) **81m:34016**
- Bykadorov, Ju. A. See Lando, Ju. K., **81c:93016**
- Cahlon, Baruch (with Westreich, David) Complete continuity of integro-differential operators with discontinuous kernels and collectively compact approximations. **81c:45020**
- Caljuk, Z. B. A remark apropos of Ljapunov's method for integro-differential equations. (Russian) **81c:45023**
- Chen, Goong (with Grimmer, Ronald) Semigroups and integral equations. **81f:45026**
- Da Prato, Giuseppe. See Barbu, Viorel; et al., **81f:45025**
- Davidson, J. N. See Emmert, G. A.; et al., **81b:76061**
- Emmert, G. A. (with Wieland, R. M.; Mense, A. T.; Davidson, J. N.) Electric sheath and presheath in a collisionless, finite ion temperature plasma. **81b:76061**
- Filatov, A. N. See Karimov, A. U.; et al., **81b:73006**
- Gabdušhev, B. G. Compact approximation of a class of singular integro-differential equations. (Russian) **81f:45023**
- Grimmer, Ronald. See Chen, Goong, **81f:45026**
- Iannelli, Mimmo. See Barbu, Viorel; et al., **81f:45025**
- Kadoh/jan'skij, R. M. Representation of the solution of the Cauchy problem for certain integro-differential equations in the form of an integral with respect to a Wiener measure. (Russian. English summary) **81c:45012**
- Kaper, J. N. Delay-differential and integro-differential equations in population dynamics. **81b:34086**
- Karimov, A. U. (with Koltunov, S. A.; Filatov, A. N.) A generalized method of freezing in the theory of viscoelasticity. (Russian) **81b:73006**
- Koltunov, S. A. See Karimov, A. U.; et al., **81b:73006**
- Lando, Ju. K. (with Bykadorov, Ju. A.) Nonnormally solvable and controllable integro-differential correspondences. (Russian) **81c:93016**
- Lima, Arlete Cerqueira. Asymptotic equivalence of Volterra integral equations. (Slovak and Russian summaries) **81c:45004**
- Logunov, V. M. A method for averaging of integro-differential equations. (Russian) **81m:34056**
- Londen, Stig-Olof. On a Volterra integro-differential equation with L^∞ -perturbation and noncountable zero-set of the transformed kernel. **81d:45004**
- Magonedov, G. M. A method of a priori estimates for nonlinear equations with singular integrals. (Russian) **81f:45009**
- Mense, A. T. See Emmert, G. A.; et al., **81b:76061**
- Morchał, Józef. A functional differential inequality for linear integro-differential equation with retardation. **81f:34072**
- Olive, W. M. The Levin-Nobel equation on the torus. **81m:58043**
- Sin'ko, G. I. Spectral functions of an integro-differential operator on a semiaxis. (Russian) **81b:47073**
- Staffans, Olof J. A nonlinear Volterra integral equation with square integrable solutions. **81d:45005**
- On a nonlinear integral equation with a nonintegrable perturbation. **81d:45006**
- A Volterra equation with square integrable solution. **81d:45007**
- Tuzik, A. I. Discrete equations of convolution type with coefficients of power growth. (Russian. English summary) **81b:39003**
- Westreich, David. See Cahlon, Baruch, **81c:45020**
- Wieland, R. M. See Emmert, G. A.; et al., **81b:76061**
- Wiggins, Kenneth L. Best L_p approximate solutions of nonlinear integro-differential equations. **81b:45025**

45K05 Integro-partial differential equations

- Bloom, Frederick. Concavity arguments and growth estimates for damped linear integro-differential equations with applications to a class of holohedral isotropic dielectrics. (German summary) **81j:45015**
- Lower bounds for solutions to a class of nonlinear integro-differential equations in Hilbert space. **81b:45021**
- Busoni, Giorgio. Nonhomogeneous boundary conditions in evolution problems. (Italian summary) **81j:45016**
- Conlon, Joseph G. A boundary value problem for the three-dimensional neutron transport equation. **81j:45017**
- D'Ambrosio, Ubratan (with Krivošelin, L. E.; Mangeron, Dumitru Ion; Shimbo, Masaru) Méthode unitaire d'étude de différentes classes de problèmes "bien posés" concernant certains systèmes intégraux non linéaires aux opérateurs polyvibrants et aux autocontrôles dans les limites d'intégration. (English and Romanian summaries) **81f:45020**
- Davis, Paul L. On the speed of propagation of solutions of integro-differential equations. **81b:45022**
- Domak'hil', V. M. Asymptotic solution of a system of integro-differential equations with retarded argument. (Ukrainian. English and Russian summaries) **81b:45023**
- Gaeva, E. A. (with Homa, G. P.) Averaging in first-order hyperbolic integro-differential systems. (Russian) **81c:45021**
- Gildouche, Hamid. See Ukal, Selji; et al., **81b:45018**
- Homa, G. P. Averaging of hyperbolic integro-differential systems with fast and slow variables. (Russian) **81c:45022**
- See also Gaeva, E. A., **81c:45021**
- Krivošelin, L. E. (with Leung, K. V.; Musurliu, T.; Oğuztöreli, Mehmet Namık) Problèmes à la frontière aux autocontrôles concernant une classe d'équations intégrales hyperboliques. (Romanian and English summaries) **81f:45021**
- See also D'Ambrosio, Ubratan; et al., **81f:45020**
- Leung, K. V. See Krivošelin, L. E.; et al., **81f:45021**
- Mangeron, Dumitru Ion. See D'Ambrosio, Ubratan; et al., **81f:45020**
- Musurliu, T. See Krivošelin, L. E.; et al., **81f:45021**
- Oğuztöreli, Mehmet Namık. See Krivošelin, L. E.; et al., **81f:45021**
- Pao, C. V. Nonexistence of global solutions for an integro-differential system in reactor

dynamics. (81h:45024)

Point, Nelly. See Ukal, Seiji; et al. (81i:45018)

Poljnikov, V. P. The global solvability of nonlinear transport equations. (Russian) (81f:45022)

Raynal, Marie-Lise. On some nonlinear problems of diffusion. (81b:45024)

Sanchez-Hubert, Jacqueline. Étude de certaines équations intégrales différentielles issues de la théorie de l'homogénéisation. (Italian summary) (81k:45017)

Shimbo, Masaru. See D'Ambrosio, Ubaldo; et al. (81f:45020)

Skakunskas, V. The existence and uniqueness of the solution for a system of integro-differential equations. (Russian. Lithuanian and English summaries) (81c:45023)

Staffans, Olof J. On a nonlinear hyperbolic Volterra equation. (81j:45018)

Tesell, Alberto. Approximation results for Volterra integro-partial differential equations. (81m:45017)

Ukal, Seiji (with Point, Nelly; Ghidouche, Hamid) Sur la solution globale du problème mixte de l'équation de Boltzmann nonlinéaire. (81i:45018)

Wheeler, Robert L. Asymptotic behavior of solutions of linear Volterra integro-differential equations in Hilbert space. (81d:45018)

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Bainov, D. D. (with Krivošein, L. E.; Leung, K. V.; Oğuztöreli, Mehmet Namik) Investigation of nonlinear Manganer polywave systems with heredity and control within the limits of integration. (Russian. Romanian summary) (81c:35087)

Belloni-Morante, Aldo. See Busoni, Giorgio; et al. (81c:85005)

Bitopol'ska, Ja. I. The Cauchy problem for a class of integro-differential equations and systems in Hilbert space. (Russian) (81j:60071)

Bloom, Frederick. Asymptotic bounds for solutions to a system of damped integro-differential equations of electromagnetic theory. (81e:78010)

Bobylev, A. V. Structure of the general solution and classification of partial sums of the Boltzmann nonlinear equation for Maxwellian molecules. (Russian) (81j:82019)

Busoni, Giorgio (with Frosali, Giovanni; Belloni-Morante, Aldo) A nonlinear problem of evolution arising from radiation transfer theory. (81c:85005)

Conlon, Joseph G. Fundamental solutions for the anisotropic neutron transport equation. (81i:82075)

Di Blasio, Gabriella. A nonlinear problem which occurs in the kinetic theory of vehicular traffic. (81j:90051)

Èneev, T. M. The equation of the accumulative process of formation of planetary systems. (Russian) (81i:85001)

Frosali, Giovanni. See Busoni, Giorgio; et al. (81c:85005)

Ganapol, B. D. Solution of the time-dependent monoenergetic neutron transport equation in a semi-infinite medium. (81f:82045)

Grafarend, Erik W. (with Hauer, K.) The equilibrium figure of the Earth. (81k:86011)

Hauer, K. See Grafarend, Erik W. (81k:86011)

Keller, Joseph B. See Vanden-Broeck, Jean-Marc. (81k:76006)

Kojima, Ju. Structure of the solution of certain systems of integral equations connected with the approximate solution of the problem of radiative transfer. (Russian. English summary) (81b:85003)

Krivošein, L. E. See Bainov, D. D.; et al. (81c:35087)

Lekkerkerker, C. G. On eigendistributions in linear transport theory. (81c:82032)

Leung, K. V. See Bainov, D. D.; et al. (81c:35087)

Lin, S. L. See Weinert, U.; et al. (81k:82028)

Lord, M. E. Validation of an invariant embedding method for Fredholm integral equations. (81g:45003)

(Mărcuș, G. I.) See Sultangazin, U. M. (81h:82056)

Mason, E. A. See Weinert, U.; et al. (81k:82028)

Matveev, P. N. Operator representations of particular solutions of a class of integro-partial differential equations. (Russian) (81c:73060)

Mazzotti, Enrico (with Renno, Pasquale) Wave propagation in a linear viscoelastic system in the presence of mass forces. (Italian. English summary) (81e:73041)

Muncaster, R. G. See Truesdell, Clifford Ambrose. (81f:80001)

Noguchi, Shoichi (with Tanaka, Akio; Sugawara, Kenji) Properties of analogue neural networks. (81f:92015)

Oğuztöreli, Mehmet Namik. See Bainov, D. D.; et al. (81c:35087)

Okabe, Takayoshi. See Ukal, Seiji. (81i:35007)

Pachpatte, B. G. On some integro-differential inequalities similar to Wendroff's inequality. (81b:26010)

On some new integro-differential inequalities of the Wendroff type. (81b:26020)

Ramacher, U. Faddeev equations in the functional quantum theory of the nonlinear spinorfield. (81m:81063)

Ramanathan, G. V. Generalized Boltzmann equation for many-body distributions. (Italian and Russian summaries) (81i:82035)

Rassolova, M. Ju. Evolution of perturbations of equilibrium solutions of Bogoljubov's kinetic equations. (Russian. English summary) (81f:82017)

Renno, Pasquale. See Mazzotti, Enrico. (81e:73041)

Schenk, Dieter. Integrodifferentialgleichungen zu hyperbolischen Cauchyproblemen in Räumen von Ultradistributionen. (81k:35090)

Seifert, George. A temperature equation for a rigid heat conductor with memory. (81h:45005)

Semenzato, R. The Boltzmann equation: continuity of the solution with respect to initial data. (81g:82035)

Shib, Weidun. Une remarque sur les équations du type de Boltzmann. (English summary) (81m:58087)

Sipilvi, B. N. (with Tolmač, I. M.) Computation of two-dimensional electromagnetic fields in inductive MHD machine channels having an open magnetic conductor at finite Re_m numbers. I. (81h:76064)

Sugawara, Kenji. See Noguchi, Shoichi; et al. (81f:92015)

Sultangazin, U. M. ★ Методы сферических гармоник в дискретных ординатах в задачах кинетической теории переноса. (Russian) [Methods of spherical harmonics and discrete ordinates in problems of kinetic transport theory] (81h:82056)

Tanaka, Akio. See Noguchi, Shoichi; et al. (81f:92015)

Teo, K. L. Existence and uniqueness of solutions of system governed by second-order quasilinear integro-partial differential equations of parabolic type. (81j:35066)

Tokar, Ja. I. Existence and uniqueness of the solution of a coagulation equation. (Russian) (81a:80007)

Tolmač, I. M. See Sipilvi, B. N. (81h:76064)

Truesdell, Clifford Ambrose (with Muncaster, R. G.) ★ Fundamentals of Maxwell's kinetic theory of a simple monatomic gas. (81f:80001)

Ukal, Seiji (with Okabe, Takayoshi) On classical solutions in the large in time of two-dimensional Vlasov's equation. (81i:35007)

Vanden-Broeck, Jean-Marc. Advances in the numerical computation of capillary-gravity waves. (81g:76018)

(with Keller, Joseph B.) Bubble or drop distortion in a straining flow in two dimensions. (81k:76006)

Victory, H. D., Jr. Criticality problems for slabs and spheres in energy dependent neutron transport theory. (81a:82063)

Convergence properties of discrete-ordinates solutions for neutron transport in three-dimensional media. (81g:45010)

Weinert, U. (with Lin, S. L.; Mason, E. A.) Solutions of the nonlinear Boltzmann equation describing relaxation to equilibrium. (81k:82028)

Williams, M. M. R. On two integro-differential equations arising in particle transport theory. (81c:82034)

45LXX Approximation of solutions

45L05 Theoretical approximation of solutions

Cahlon, Baruch (with Westreich, David) Complete continuity of integro-differential operators with discontinuous kernels and collectively compact approximations. (81c:45026)

Friedman, Mark J. A finite element method for the solution of a potential theory integral equation. (81j:45019)

Gabdukhov, B. G. Compact approximation of a class of singular integro-differential equations. (Russian) (81i:45023)

Hacı, Lechosław. On approximate solving of the Fourier problems. (81k:45018)

Hesslein, Mohamed Ismail M. On approximate solution of mixed additive linear integral equations. (Arabic summary) (81c:45024)

Leonov, A. S. Regularization of ill-posed problems with discontinuous solutions and the application of these methods in the solution of some nonlinear equations. (Russian) (81i:45019)

Mullikin, T. W. Wiener-Hopf factorizations: computational methods for a class of matrix functions. (81i:45020)

Pröbldorf, Siegfried. Über die näherungsweise Lösung von singulären Integralgleichungen. (81m:45018)

Ten Men Jan. Block method for solving two-dimensional Volterra integral equations of the first kind. (Russian) (81c:45021)

Westreich, David. See Cahlon, Baruch. (81c:45020)

Wiggins, Kenneth L. Best L_p approximate solutions of nonlinear integro-differential equations. (81h:45025)

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Alekseenko, S. N. See Imanaliev, M. I.; et al. (81k:46041)

Bakae, N. Ju. (with Tarasov, R. P.) Stable solution of a class of convolution type integral equations of the first kind. (Russian) (81a:45004)

Brézis, Haim. Nonlinear equations of Thomas Fermi type. (81c:49014)

Buhnikavili, L. A. A variant of an iteration scheme for a Fredholm equation of the first kind. (Russian) (81m:45001)

Gasnov, G. M. Approximation of locally-monotone functions by linear positive operators in L . (Russian) (81k:41053)

Golberg, Israel (with Krupnik, N. Ja.) On composite linear singular integral operators. (See 80c:00006)

Imanaliev, M. I. (with Alekseenko, S. N.; Pankov, P. S.) On the theory of approximation of generalized functions by continuous ones on a closed interval. (Russian) (81k:46041)

Johnson, Robert E. An improved slender-body theory for Stokes flow. (81g:76045)

Kadushin, V. P. Approximate solution of singular integral equations with complex-conjugate unknowns. (Russian) (81j:45022)

Krupnik, N. Ja. See Golberg, Israel. (See 80c:00006)

Makovoz, Ju. I. (with Šeško, M. A.) Approximate solution of a singular characteristic integral equation. (Russian) (81d:45011)

Mazilu, P. (with Păltăneanu, Gavril) Semidiscretization method for the numerical solving of Volterra integral equations. (81m:45004)

Novosad, Pedro (with Tovar, Raul) Spectral inequalities and G -functions. (81g:15021)

Păltăneanu, Gavril. See Mazilu, P. (81m:45004)

Pankov, P. S. See Imanaliev, M. I.; et al. (81k:46041)

Pitkäranta, Juhani. Estimates for the derivatives of solutions to weakly singular Fredholm integral equations. (81m:45006)

Rybakova, V. E. An integral equation with partial integrals and kernels with fixed singularity. (Russian) (81f:45009)

Savčenko, T. I. On stable differentiation of functions. (Russian) (81k:26008)

Šeško, M. A. See Makovoz, Ju. I. (81d:45011)

Tarasov, R. P. See Bakae, N. Ju. (81a:45004)

Tovar, Raul. See Novosad, Pedro. (81g:15021)

Wendt, Werner. Über eine eindimensionale lineare Integro-Differentialgleichung und deren approximative Lösung mit dem Differenzenverfahren. (Russian, English and French summaries) (81k:45016)

45L10 Numerical approximation of solutions (For numerical analysis, see 65R20.)

Andersen, Robert S. On the use of linear functionals for Abel-type integral equations in applications. **81h:45026**

Chandler, G. A. Superconvergence for second kind integral equations. **81h:45027**

Derkač, V. P. (with Korsunskii, V. M.; Odarič, O. M.; Grabovskii, B. O.) An integral equation describing the interaction between the accelerated electron flow and the target. (Russian. English summary) **81f:45024**

Džikriani, A. V. On the solution of singular integral equations by approximate projective methods. (Russian) **81e:45022**

Gabduhaev, B. G. Finite-dimensional approximations of singular integrals and direct methods for solving singular integral and integro-differential equations. (Russian) **81m:45019**

Grabovskii, B. O. See Derkač, V. P.; et al., **81f:45024**

Hagin, Frank. On the construction of well-conditioned systems for Fredholm I problems by mesh adapting. **81j:45021**

Kashala, V. P. Approximate solution of singular integral equations with complex-conjugate unknowns. (Russian) **81j:45022**

Korsunskii, V. M. See Derkač, V. P.; et al., **81f:45024**

Odarič, O. M. See Derkač, V. P.; et al., **81f:45024**

Victory, H. D., Jr. Convergence properties of discrete-ordinates solutions for neutron transport in three-dimensional media. **81g:45010**

secondary classifications:

Barthes, V. (with Vasseur, G.) An inverse problem for electromagnetic prospection. **(81e:78009)**

Berkhoff, J. C. W. Diffraction of water waves. **(81i:76008)**

Dženko, V. D. Approximate solution of singular integral equations with complex conjugate unknowns. (Russian. English summary) **(81a:65119)**

Hemker, P. W. (with Schippers, H.) Multiple grid methods for the solution of Fredholm integral equations of the second kind. **(81m:65197)**

Kazymov, A. A. Approximate solution of multidimensional nonlinear integral equations of mixed type. (Russian) **(81j:45012)**

MacCamy, Richard C. (with Weiss, Philip) Numerical approximations for Volterra integral equations. **(81c:45001)**

Magomedov, G. M. A method of a priori estimates for nonlinear equations with singular integrals. (Russian) **(81j:45009)**

Nédélec, J.-C. Méthodes d'éléments finis courbes pour la résolution des équations intégrales singulières sur des surfaces de \mathbb{R}^3 . **(81e:65071)**

Odnovolova, T. N. See Sjavavko, M. S., **(81i:65108)**

Pergament, A. H. (with Tel'kovskaja, O. V.) The regularization method and the maximum likelihood method in solution of integral equations of the first kind. (Russian) **(81k:65150)**

Rele, H. J. J. Introduction and global survey of numerical methods for integral equations. **(81g:65182)**

Rogovoi, A. A. Solution of integral equations by the source method. (Russian) **(81f:65092)**

Schippers, H. Multigrid techniques for the solution of Fredholm integral equations of the second kind. **(81g:65183)**

See also Hemker, P. W., **(81m:65197)**

Sjavavko, M. S. (with Odnovolova, T. N.) Representation of the solution of a class of nonlinear Fredholm equations by branching integral continued fractions. (Russian) **(81i:65108)**

Shao, Ian H. A review of numerical methods for Fredholm equations of the second kind. **(81h:65133)**

Tel'kovskaja, O. V. See Pergament, A. H., **(81k:65150)**

Vasseur, G. See Barthes, V., **(81e:78009)**

Weiss, Philip. See MacCamy, Richard C., **(81c:45001)**

45L99 None of the above, but in this section

secondary classifications:

Galgano, Anna. See Galgano, Mario, **(81f:92010)**

Galgano, Mario (with Galgano, Anna) Tricometrograms for transverse section models of hairs. III. Models of oval form with bilateral symmetry. (Italian. English summary) **(81f:92010)**

Nelson, Paul, Jr. The effect of data errors for linear transport in slab geometry. **(81i:82076)**

Wagh, Arun S. A perturbation method to solve Boltzmann transport equation. **(81g:82084)**

45Mxx Qualitative behavior

45M05 Asymptotics

Berk, H. L. (with Pfirsch, D.) WKB method for systems of integral equations. **81h:45028**

Caljuk, Z. B. A remark apropos of Ljapunov's method for integro-differential equations. (Russian) **81e:45023**

Gripenberg, Gustaf. On the asymptotic behaviour of solutions of nonlinear integral equations in Banach spaces. **81d:45019**

Levin, Jacob J. Some perturbation problems for Volterra equations. **81m:45020**

Milutina, S. D. Application of the averaging method to a class of singularly perturbed integro-differential equations. (Russian. Bulgarian and English summaries) **81e:45024**

Pfirsch, D. See Berk, H. L., **81h:45028**

Polyvance, I. P. On an integral equation of Volterra type and asymptotic equivalences. (Russian) **81j:45023**

Wagner, Eberhard. Zur Asymptotik der Lösungen linearer Volterrascher

Integralgleichungssysteme zweiter Art vom Faltungstyp mit nichtnegativen Kernen. **81c:45025**

secondary classifications:

Carr, Ralph W. (with Hannsgen, Kenneth B.) A nonhomogeneous integro-differential equation in Hilbert space. **(81h:45014)**

Cowan, J. D. See Ermentrout, G. B., **(81k:92012)**

Ermentrout, G. B. (with Cowan, J. D.) Secondary bifurcation in neuronal nets. **(81k:92012)**

Grace, S. R. (with Lalli, B. S.) Asymptotic behaviour of certain second order integro-differential equations. **(81k:45014)**

Gripenberg, Gustaf. On the asymptotic behavior of resolvents of Volterra equations. **(81h:45003)**

Hannsgen, Kenneth B. A uniform approximation for an integro-differential equation with parameter. **(81f:45016)**

See also Carr, Ralph W., **(81h:45014)**

Iskandarov, S. See Ved', Ju. A., **(81k:45015)**

Jordan, G. S. (with Wheeler, Robert L.) Structure of resolvents of Volterra integral and integro-differential systems. **(81h:45002)**

(with Wheeler, Robert L.) Weighted L^1 -remainder theorems for resolvents of Volterra equations. **(81j:45003)**

Karakostas, George. Asymptotic behavior of time-additive operator equations. **(81j:45012)**

Karimov, A. U. (with Koltunov, S. A.; Puhareva, N. V.) Generalization of Poincaré's method to some classes of integro-differential equations. (Russian) **(81h:45019)**

Koltunov, S. A. See Karimov, A. U.; et al., **(81h:45019)**

Köthe, Gottfried. Topological vector spaces. II. **(81g:46001)**

Lalli, B. S. See Grace, S. R., **(81k:45014)**

Levin, Jacob J. Nonlinearly perturbed Volterra equations. **(81h:45004)**

Puhareva, N. V. See Karimov, A. U.; et al., **(81h:45019)**

Staffans, Olof J. A nonlinear Volterra integral equation with square integrable solutions. **(81d:45005)**

On a nonlinear integral equation with a nonintegrable perturbation. **(81d:45006)**

Ved', Ju. A. (with Iskandarov, S.) Characteristic singularities of integro-differential systems of Volterra type. (Russian) **(81k:45015)**

Victory, H. D., Jr. On the spectral radius of integral operators defined by a class of difference kernels. **(81e:45005)**

Wheeler, Robert L. Asymptotic behavior of solutions of linear Volterra integro-differential equations in Hilbert space. **(81d:45018)**

See also Jordan, G. S., **(81h:45002)** and Jordan, G. S., **(81j:45003)**

45M10 Stability theory

Bainov, D. D. (with Sarafova, G. H.) An application of the numerical-analytic method of A. M. Samoilenko for investigation of periodic systems of integro-differential equations. **81e:45025**

Corduneanu, Adrian. Uniform asymptotic stability for systems of Volterra integral equations. (Romanian summary) **81e:45026**

Kerge, R. The method of subregions for a periodic problem. (Russian. German summary) **81e:45027**

Sarafova, G. H. See Bainov, D. D., **81e:45025**

secondary classifications:

Barbu, Viorel (with Da Prato, Giuseppe; Iannelli, Mimmo) Stability results for some integro-differential equations of hyperbolic type in Hilbert space. **(81i:45025)**

Čorlev, H. Regular stability of the Riemann boundary value problem and calculation of partial indices. (Russian) **(81c:30076)**

Da Prato, Giuseppe. See Barbu, Viorel; et al., **(81i:45025)**

Gripenberg, Gustaf. Stability problems for some nonlinear Volterra equations. **(81i:45004)**

Iannelli, Mimmo. See Barbu, Viorel; et al., **(81i:45025)**

Jordan, G. S. (with Wheeler, Robert L.) Rates of decay of resolvents of Volterra equations with certain nonintegrable kernels. **(81d:45003)**

Lewis, H. Ralph. Numerical treatment of linearized equations describing inhomogeneous collisionless plasmas. **(81j:76108)**

Wheeler, Robert L. See Jordan, G. S., **(81d:45003)**

45M99 None of the above, but in this section

secondary classifications:

Bloom, Frederick. Lower bounds for solutions to a class of nonlinear integro-differential equations in Hilbert space. **(81h:45021)**

Cushing, J. M. Nontrivial periodic solutions of some Volterra integral equations. **(81f:45006)**

Dickmann, O. Integral equations and population dynamics. **(81i:92017)**

Pachpatte, B. G. Comparison theorems for Volterra integral equations in a Banach space. **(81h:45024)**

Reddy, K. Narsimha. Integral inequalities and applications. **(81d:34010)**

Stech, Harlan W. Periodic solutions to a nonlinear Volterra integro-differential equation. **(81f:45018)**

Story, L. An analysis of the "semidissipative" terms in the plasma-dynamical equations. **(81m:82031)**

Thieme, Horst R. On the boundedness and the asymptotic behaviour of the nonnegative solutions of Volterra-Hammerstein integral equations. **(81i:45006)**

45N05 Abstract integral equations, integral equations in abstract spaces

Bainov, D. D. See Konstantinov, Mihail M., **81i:45022**

- Barbu, Viorel** Degenerate nonlinear Volterra integral equations in Hilbert space. **81a:45010**
(with Da Prato, Giuseppe; Iannelli, Mimmo) Stability results for some integro-differential equations of hyperbolic type in Hilbert space. **81f:45025**
- Chen, Goong** (with Grimmer, Ronald) Semigroups and integral equations. **81f:45026**
- Da Prato, Giuseppe** See Barbu, Viorel; et al., **81f:45025**
- Earlich, M.** Über die Lösbarkeit einer nichtlinearen Integralgleichung in nicht lokalkonvexen Räumen. **81e:45028**
- Grimmer, Ronald** See Chen, Goong, **81f:45026**
- Gripenberg, Gustaf** An abstract nonlinear Volterra equation. **81g:45011**
- Hvoles, A. A.** Two-dimensional singular integral equations in $C_\alpha(M)$ spaces. (Russian. Georgian and English summaries) **81f:45021**
- Iannelli, Mimmo** See Barbu, Viorel; et al., **81f:45025**
- Jedryka, Tadeusz M.** An estimation of the solution of Volterra's integral equation for vector-valued function with values in an Orlicz-Sobolev space. **81k:45019**
- Kiffe, T.** (with Stecher, M.) An abstract Volterra integral equation in a reflexive Banach space. **81d:45020**
(with Stecher, M.) Properties and applications of the resolvent operator to a Volterra integral equation in Hilbert space. **81h:45029**
A perturbation of an abstract Volterra equation. **81m:45021**
- Konstantinov, Mihail M.** (with Bainov, D. D.) Some functional equations in a Banach space with a deviating vector argument. (Russian) **81i:45022**
- Korotkiĭ, V. B.** Integral equations of the first and third kind. (Russian) **81b:45025**
- Koval'čik, I. M.** Some remarks on the connection of linear operator equations with the Gaussian integral. (Russian) **81f:45023**
- Lakshmikantham, V.** Existence and comparison results for Volterra integral equations in a Banach space. **81h:45026**
- Nohel, John A.** On some nonlinear Volterra functional differential equations. **81k:45020**
- Newicka, Krystyna** Some integral-functional equation with an unknown function of several variables. **81d:45021**
- Pachpatte, B. G.** Comparison theorems for Volterra integral equations in a Banach space. **81f:45024**
- Pluciennik, Ryszard** An application of modular spaces to integral equations of Uryson type. **81d:45022**
- Rama, A. G.** A class of integral equations. (Russian) **81c:45026**
- Stecher, M.** See Kiffe, T., **81d:45020** and Kiffe, T., **81h:45029**
- Szafla, Stanisław** The generic property of existence of solutions of integral equations in Banach spaces. **81h:45030**
- Tanabe, Hiroki** Note on nonlinear Volterra integral equation in Hilbert space. **81f:45027**
- Turo, Jan** Existence theory for a class of nonlinear random functional integral equations. **81m:45022**
- Vaughan, Randy** Criteria for the existence and comparison of solutions to nonlinear Volterra integral equations in Banach space. **81e:45029**
- Ward, James R., Jr.** Semilinear boundary value problems in Banach space. **81e:45030**

secondary classifications:

- Angelov, V. G.** (with Bainov, D. D.) Existence and uniqueness of the global solution of certain integral-functional equations in a space. (Russian) **(81i:45059)**
- Bainov, D. D.** See Angelov, V. G., **(81i:45059)**
- Bloom, Frederick** Concavity arguments and growth estimates for damped linear integro-differential equations with applications to a class of holohedral isotropic dielectrics. (German summary) **(81j:45015)**
Lower bounds for solutions to a class of nonlinear integro-differential equations in Hilbert space. **(81h:45021)**
- Chen, Goong** (with Grimmer, Ronald) Well-posedness and approximations of linear Volterra integro-differential equations in Banach spaces. **(81b:45015)**
- Cole, R. J.** Complementary variational principles and the Bubnov-Galerkin method. (Italian summary) **(81f:49043)**
- Grimmer, Ronald** See Chen, Goong, **(81b:45015)**
- Gripenberg, Gustaf** On the asymptotic behaviour of solutions of nonlinear integral equations in Banach spaces. **(81d:45019)**
Stability problems for some nonlinear Volterra equations. **(81i:45004)**
- Maierova, N. L.** See Zabrejko, P. P., **(81c:45011)**
- Travis, C. C.** An abstract Volterra Stieltjes-integral equation. **(81b:45003)**
- Zabrejko, P. P.** (with Maierova, N. L.) Solvability of the nonlinear Uryson integral equation. (Russian) **(81c:45011)**

45P05 Integral operators [See also 47Axx, 47Bxx, 47G05.]

- Bardos, Claude** (with Cessenat, M.) Spectre de l'opérateur de transport. **81f:45028**
- Blise, V. M.** (with Dighe, Madhavi) On composition of integral operators with Fourier-type kernels. **81f:45025**
- Cessenat, M.** See Bardos, Claude, **81f:45028**
- Clancey, Kevin** (with Gohberg, Israel) Localization of singular integral operators. **81c:45027**
- Dighe, Madhavi** See Blise, V. M., **81f:45025**
- Faour, Nazih S.** The Fredholm index of a class of vector-valued singular integral operators. **81d:45023**
- Gohberg, Israel** See Clancey, Kevin, **81c:45027**
- Kal'mus'evskii, I. G.** On the solution of some integral equations with kernels depending on the difference and sum of arguments. (Russian) **81h:45031**
- Karakostas, George** Asymptotic behavior of time-additive operator equations. **81g:45012**
- Karlovic, Ju. I.** (with Kravčenko, V. G.) The algebra of singular integral operators with non-Carleman shift and piecewise continuous coefficients. (Russian) **81j:45024**
- Kravčenko, V. G.** See Karlovic, Ju. I., **81j:45024**
- Landau, Henry J.** (with Widom, Harold) Eigenvalue distribution of time and frequency limiting. **81m:45023**
- Mukherjee, R. N.** On some trace class integral operators. **81f:45026**
- Rjatin, A. G.** See Tikhomirov, N. B., **81m:45024**
- Sijmarčuk, V. E.** Bounded solutions of linear functional equations with linear

transformations of the argument. (Russian) **81f:45027**

Tikhomirov, N. B. (with Rjatin, A. G.) ★Линейные положительные операторы и сингулярные интегралы. (Russian) [Linear positive operators and singular integrals] **81m:45024**

Widom, Harold See Landau, Henry J., **81m:45023**

secondary classifications:

- Dil'muradov, N.** See Tašev, Ž., **(81m:45008)**
- Dybin, V. B.** See Grudskii, S. M., **(81h:30044)**
- Erikanov, Ž. S.** (with Žubac, N. Ž.; Tleukenov, S. K.) On the study of cylindrical waves on a cross section with viscous friction. (Russian. Kazakh summary) **(81h:73015)**
- Gindikin, S. G.** See Volevič, L. R., **(81d:46044)** and Volevič, L. R., **(81i:46044)**
- Grudskii, S. M.** (with Dybin, V. B.) A Riemann boundary value problem in the space $L_p(\Gamma, \rho)$ with almost-periodic gaps in its coefficient. (Russian) **(81h:30044)**
- Halmuradov, E.** Singular Cauchy integral with summable density. (Russian) **(81h:45007)**
- Helwig, Georg** Invertibility of singular integral operators. (Russian. Georgian and English summaries) **(81k:47069)**
- Hill, L. Thomas** Spectral analysis of finite convolution operators with matrix kernels. **(81c:47050)**
- Korotkiĭ, V. B.** Integral equations of the first and third kind. (Russian) **(81b:45025)**
Some properties of integral and partially integral operators in L_2 . (Russian) **(81k:47070)**
- Koval'čik, I. M.** Some remarks on the connection of linear operator equations with the Gaussian integral. (Russian) **(81f:45023)**
- Lataškin, Ju. D.** On the Noether theory of singular integral operators with multivalued shift. (Russian) **(81m:47074)**
- Malanad, M. M.** Spectral analysis of operators of convolution type. (Russian) **(81d:47011)**
- Nowosad, Pedro** (with Tovar, Raul) The Carleman-Smithies theory of integral operators for reflexive Orlicz spaces. **(81e:45002)**
- Orton, Marion** The generalized Abel equations for Schwartz distributions. **(81k:46040)**
- Povolockii, A. I.** See Zabrejko, P. P., **(81c:47067)**
- Soldatov, A. P.** On the Noether theory of operators. Wiener imbeddings of B-algebras. (Russian) **(81c:46042)**
- Sprössig, Wolfgang** Quadratur mehrdimensionaler singularer Parameterintegrale und ihre Anwendung zur Lösung partieller Differentialgleichungen. **(81h:65019)**
- Sub-Sizonenko, Ju. A.** Inversion of an integral operator by the method of expansion with respect to orthogonal Watson operators. (Russian) **(81f:44011)**
- Tašev, Ž.** (with Dil'muradov, N.) A singular operator equation with Carleman shift of order two in a normed ring with involution. (Russian) **(81m:45008)**
- Tleukenov, S. K.** See Erikanov, Ž. S.; et al., **(81h:73015)**
- Tovar, Raul** See Nowosad, Pedro, **(81e:45002)**
- Volevič, L. R.** (with Gindikin, S. G.) The Wiener-Hopf equation for smooth and generalized functions in a half-space. (Russian) **(81d:46044)**
(with Gindikin, S. G.) The Wiener-Hopf equation in generalized functions that are smooth on a half-line. (Russian) **(81i:46044)**
- Zabrejko, P. P.** (with Povolockii, A. I.) The Hammerstein operator and Orlicz spaces. (Russian) **(81c:47067)**
- Žubac, N. Ž.** See Erikanov, Ž. S.; et al., **(81h:73015)**

46-XX FUNCTIONAL ANALYSIS (For manifolds modeled on topological linear spaces, see 57N20, 58Bxx.)

46-01 Elementary exposition, textbooks

- Gvišiani, A. D.** See Kirillov, A. A., **81i:46002**
- Hutson, V. C. L.** (with Pym, J. S.) ★Applications of functional analysis and operator theory. **81i:46001**
- Kirillov, A. A.** (with Gvišiani, A. D.) ★Теоремы и задачи функционального анализа. (Russian) [Theorems and problems of functional analysis] **81i:46002**
- Lay, David C.** See Taylor, Angus Ellis, **81b:46001**
- Milne, Ronald Douglas** ★Applied functional analysis. **81j:46001**
- Pym, J. S.** See Hutson, V. C. L., **81i:46001**
- Schwartz, Laurent** ★Analyse hilbertienne. (French) [Hilbertian analysis] **81a:46001**
- Taylor, Angus Ellis** (with Lay, David C.) ★Introduction to functional analysis. **81b:46001**
- Vidav, Ivan** ★Uvod v teorijo C^* -algebr. (Slovenian) [Introduction to the theory of C^* -algebras] **81a:46002**
- Wilansky, Albert** ★Modern methods in topological vector spaces. **81d:46001**
- Wouk, Arthur** ★A course of applied functional analysis. **81a:46003**

secondary classifications:

- Brehmer, Siegfried** ★Hilbert-Räume und Spektralmasse. (German) [Hilbert spaces and spectral measures] **(81c:47001)**
- de Guzmán, Miguel** (with Rubio, Baldomero) ★Integración: teoría y técnicas. (Spanish) [Integration: theory and technique] **(81j:28001)**
- Rubio, Baldomero** See de Guzmán, Miguel, **(81j:28001)**
- Szűcs, Joseph** See Weidmann, Joachim, **(81c:47001)**
- Weidmann, Joachim** ★Linear operators in Hilbert spaces. **(81c:47001)**

46-02 Advanced exposition (research surveys, monographs, etc.)

- Banach, Stefan** ★Œuvres. Vol. II. **81f:46001**
- Behrends, Ehrhard** ★ M -structure and the Banach-Stone theorem. **81b:46002**
- (Bessaga, Czesław)** See Banach, Stefan, **81f:46001**
- Köthe, Gottfried** ★Topological vector spaces. II. **81g:46001**
- Lindenstrauss, Joram** (with Tzafriri, Lior) ★Classical Banach spaces. II. **81c:46001**
- (Mazur, Stanisław)** See Banach, Stefan, **81f:46001**

- (Orlicz, Władysław) See Banach, Stefan, 81f:46001
 (Petryński, Aleksander) See Banach, Stefan, 81f:46001
 (Rokiewicz, Stefan) See Banach, Stefan, 81f:46001
 Trifirli, Lior See Lindenstrauss, Joram, 81c:46001
 Wage, Michael L. Weakly compact subsets of Banach spaces. 81g:46002
 (Zelazko, Wiesław) See Banach, Stefan, 81f:46001

Bibliography:

Banach, Stefan ★Euvres. Vol. II. 81f:46001

secondary classifications:

- Aspelt, Bernard ★Propriétés spectrales des algèbres de Banach. (French) [Spectral properties of Banach algebras] (81i:46055)
 Berenstein, Carlos A. (with Taylor, B. A.) Mean-periodic functions. (81i:42014)
 Nikol'skii, S. M. ★Приближение функций многих переменных и теоремы вложения. (Russian) [Approximation of functions of several variables and imbedding theorems] (81f:46046)
 Pietsch, Albrecht ★Operator ideals. (81a:47002)
 van Rooij, A. C. M. ★Non-Archimedean functional analysis. (81a:46084)
 Taylor, B. A. See Berenstein, Carlos A., (81i:42014)

- 46-03 Historical (must also be assigned at least one classification number from Section 01)
 46-04 Explicit machine computation and programs (not the theory of computation or programming)
 46-06 Proceedings, conferences, etc.

- (Bartle, R. G.) See Studies in functional analysis. 81j:46004
 (Bierstedt, Klaus-Dieter) See Functional analysis: surveys and recent results. 81a:46004
 (Frehe, Jens) See Special topics of applied mathematics. 81j:46003
 (Fuchsteiner, Benno) See Functional analysis: surveys and recent results. 81a:46004
 (Füčík, Svatopluk) See Nonlinear analysis, function spaces and applications. 81e:46001
 (Kufner, Alois) See Nonlinear analysis, function spaces and applications. 81e:46001
 (Lacey, H. Elton) See Notes in Banach spaces. 81m:46002
 (Nikol'skii, V. N.) See Application of functional analysis to approximation theory. 81m:46001
 (Pallaschke, Diethard) See Special topics of applied mathematics. 81j:46003
 (Serstnev, A. N.) See Constructive theory of functions and functional analysis. 81j:46002
 (Trottenberg, Ulrich) See Special topics of applied mathematics. 81j:46003
 Application of functional analysis in approximation theory ★Применение функционального анализа в теории приближений. (Russian) [Application of functional analysis to approximation theory] 81m:46001
 Approximation theory ★Применение функционального анализа в теории приближений. (Russian) [Application of functional analysis to approximation theory] 81m:46001
 Banach spaces ★Notes in Banach spaces. 81m:46002
 Bona ★Special topics of applied mathematics. 81j:46003

Conference:

- Functional Analysis ★Functional analysis: surveys and recent results. II. 81a:46004
 Constructive theory of functions and functional analysis ★Конструктивная теория функций и функциональный анализ. Вып. 2. (Russian) [Constructive theory of functions and functional analysis. No. 2] 81j:46002
 Function spaces ★Nonlinear analysis, function spaces and applications. 81e:46001
 Functional analysis ★Конструктивная теория функций и функциональный анализ. Вып. 2. (Russian) [Constructive theory of functions and functional analysis. No. 2] 81j:46002
 ★Special topics of applied mathematics. 81j:46003
 ★Studies in functional analysis. 81j:46004
 ★Применение функционального анализа в теории приближений. (Russian) [Application of functional analysis to approximation theory] 81m:46001
 ★Séminaire d'Analyse Fonctionnelle, 1979-1980. (French) [Seminar on Functional Analysis, 1979-1980] 81m:46003

- Functional analysis: surveys and recent results ★Functional analysis: surveys and recent results. II. 81a:46004

- Horn Bradlo ★Nonlinear analysis, function spaces and applications. 81e:46001
 Nonlinear analysis, function spaces and applications ★Nonlinear analysis, function spaces and applications. 81e:46001

- Notes in Banach spaces ★Notes in Banach spaces. 81m:46002
 Numerical analysis ★Special topics of applied mathematics. 81j:46003
 Optimization ★Special topics of applied mathematics. 81j:46003
 Paderborn ★Functional analysis: surveys and recent results. II. 81a:46004

Seminar:

- Functional Analysis ★Séminaire d'Analyse Fonctionnelle, 1979-1980. (French) [Seminar on Functional Analysis, 1979-1980] 81m:46003
 Special Topics of Applied Mathematics ★Special topics of applied mathematics. 81j:46003
 Special topics of applied mathematics ★Special topics of applied mathematics. 81j:46003
 Spring School: Nonlinear Analysis, Function Spaces and Applications ★Nonlinear analysis, function spaces and applications. 81e:46001
 Studies in functional analysis ★Studies in functional analysis. 81j:46004

secondary classifications:

- (Erdélyi, Ivan) See Operator theory and functional analysis. (81e:47003)
 (Kötzw, Dietrich) See Measure theory. (81d:28001)
 (Nikol'skii, S. M.) See Spectral theory of functions and operators. (81j:00010)

- (Petrakis, Nicholas) See Harmonic analysis. (81c:42001)
 (Pichorides, Stylianos K.) See Harmonic analysis. (81c:42001)
 (Štrani, A. V.) See Functional analysis, (81e:47002) and Functional analysis, (81j:47002)

- (Varopoulos, Nicolas) See Harmonic analysis. (81c:42001)

Conference:

- Harmonic Analysis ★Harmonic analysis, Iraklion 1978. (81c:42001)
 Measure Theory ★Measure theory, Oberwolfach 1979. (81d:28001)
 Functional analysis ★Функциональный анализ. Вып. 13. (Russian) [Functional analysis. No. 13] (81e:47002)
 ★Operator theory and functional analysis. (81e:47003)
 ★Функциональный анализ. Вып. 14. (Russian) [Functional analysis. No. 14] (81j:47002)

- Functions ★Spectral theory of functions and operators. (81j:00010)

- Harmonic analysis ★Harmonic analysis, Iraklion 1978. (81c:42001)

- Iraklion ★Harmonic analysis, Iraklion 1978. (81c:42001)

- Measure theory ★Measure theory, Oberwolfach 1979. (81d:28001)

Meeting:

- Operator Theory and Functional Analysis ★Operator theory and functional analysis. (81e:47003)
 Oberwolfach ★Measure theory, Oberwolfach 1979. (81d:28001)
 Operator theory ★Функциональный анализ. Вып. 13. (Russian) [Functional analysis. No. 13] (81e:47002)
 Operator theory and functional analysis ★Operator theory and functional analysis. (81e:47003)
 Operators ★Spectral theory of functions and operators. (81j:00010)
 Providence, R.I. ★Operator theory and functional analysis. (81e:47003)
 Spectral theory ★Функциональный анализ. Вып. 14. (Russian) [Functional analysis. No. 14] (81j:47002)
 Spectral theory of functions and operators ★Spectral theory of functions and operators. (81j:00010)
 Trudy Mat. Inst. Steklov. ★Spectral theory of functions and operators. (81j:00010)

46AXX Topological linear spaces

secondary classifications:

- Köthe, Gottfried ★Topological vector spaces. II. (81g:46001)
 Wilansky, Albert ★Modern methods in topological vector spaces. (81d:46001)

46A05 Locally convex spaces

- Apiola, Heikki On tensor products of locally convex \mathfrak{N} -spaces with applications to λ -nuclearity. 81i:46003
 De Wilde, Marc (with Tsirolnikov, Bella) Barrelledness and the supremum of two locally convex topologies. 81d:46004
 Frenkel, David H. (with Talagrand, Michel) On CS-closed sets. 81f:46002
 Grainger, Arthur D. On the nonstandard duality theory of locally convex spaces. 81g:46003
 Némethi, Csaba On almost sequential locally convex spaces. II. (Romanian summary) 81j:46005
 Talagrand, Michel See Frenkel, David H., 81f:46002
 Tsirolnikov, Bella A note on locally convex metrizable spaces. 81b:46003
 Subspaces with property (b) in locally convex spaces of quasibarrelled type. 81i:46004
 See also De Wilde, Marc, 81d:46004
 Valdivia, Manuel On Baire-hyperplane spaces. 81m:46004
 Veiler, E. L. The gap between sets and stability theorems in locally convex spaces. (Russian) 81j:46006
 Webb, J. H. Inductively reflexive spaces with extended Schauder decompositions. 81f:46003
 Žarinov, V. V. Duality in families of l.c.s.-subspaces. (Russian) 81b:46036

secondary classifications:

- Brace, J. W. (with Thomason, J. D.) Function space completions. (81j:46028)
 Eggle, L. Characterizations of nuclearity in Fréchet spaces. (81f:46005)
 Ferraris, Marco A new approach to differential calculus in locally convex spaces. (81d:58015)
 Floret, Klaus Some aspects of the theory of locally convex inductive limits. (81j:46009)
 Goldman, M. A. (with Krackovskii, S. N.) Composition of relatively open mappings. (Russian) (81g:54009)
 Hackenbroch, Wolfgang Operator algebras and generalized orderings in vector spaces. (81f:47044)
 Hogbe-Nlend, Henri Le théorème de Per Enflo et la propriété d'approximation dans les espaces localement convexes. (81m:46015)
 Jain, D. R. (with Jain, Pawan K.) Proper bases and homeomorphisms in the space of entire functions of several variables over non-Archimedean fields. (81j:32007)
 Jain, Pawan K. See Jain, D. R., (81j:32007)
 Jech, Thomas J. On a problem of L. Nachbin. (81d:04003)
 Krackovskii, S. N. See Goldman, M. A., (81g:54009)
 Litvinov, G. L. Generalized shift operators and their representations. (Russian) (81e:43017)
 Păltăneanu, Gavril Weighted approximation for a subspace of vector-valued continuous functions. (81i:46042)
 Papaghic, Nicolai Applications du calcul différentiel dans les espaces localement convexes à l'analyse globale. (81d:58020)
 Schottenloher, Martin An example of a locally convex space which is not an ω -space. (81d:46056)
 Talrov, S. M. Some results in the theory of topological vector spaces. (Russian. Tajiki summary) (81f:46009)

Thomson, J. D. See Brace, J. W. (81j:46028)

Zarnadze, D. N. Some locally convex spaces of continuous functions and Radon measures. (Russian) (81a:46028)

46A06 Metrizable topological linear spaces and their duals (F-, DF-spaces, etc.)

Cattaneo, U. Abelian extensions of topological vector groups. 81b:46001

Esterle, Jean Sur la métrisabilité de certaines algèbres d'opérateurs. 81c:46002

Kalton, N. J. A note on galbed spaces. 81g:46004

An F -space with trivial dual where the Krein-Mil'man theorem holds. 81m:46005

Kašlirin, V. V. Comparison of linear dimensions of some generalized power series spaces. (Russian summary) 81b:46002

Lami Dore, E. Centres asymptotiques dans certains F -espaces. (Italian summary) 81k:46001

Lobanov, S. G. An example of a nonnormable Fréchet space in which every continuous linear operator has an exponential. (Russian) 81a:46005

Moscato, V. B. Fréchet spaces without continuous norms and without bases. 81d:46003

Narung, Tui Das Different types of convexities in metric linear space. 81c:46003

Ortyński, Augustyn On complemented subspaces in direct sums of locally bounded F -spaces. (Russian summary) 81a:46006

Vasil'ev, A. I. Čebyšev sets and strict convexity of linear metric spaces. (Russian) 81j:46007

secondary classifications:

Bellenot, Steven F. An anti-open mapping theorem for Fréchet spaces. (81b:46006)

Deeb, W. (with Hussein, Deeb) Results on $L(f)$ spaces. (Arabic summary) (81e:46007)

Hussein, Deeb See Deeb, W., (81e:46007)

46A07 Barrelled spaces

Dierolf, Susanne The barrelled space associated with a bornological space need not be bornological. 81d:46005

Kera, Kazuo (with Kitsunezaki, Naoki; Terao, Yutaka) Countable-codimensional subspaces of topological vector spaces. 81c:46002

Kitsunezaki, Naoki See Kera, Kazuo; et al., 81c:46002

Robertson, W. J. (with Yeomans, F. E.) On the stability of barrelled topologies. I. 81a:46007

(with Tweddle, I.; Yeomans, F. E.) On the stability of barrelled topologies. III. 81m:46006b

Shuchat, Alan Infrabarrelled spaces, linear operators and vector measures. 81d:46002

Terao, Yutaka See Kera, Kazuo; et al., 81c:46002

Tweddle, I. (with Yeomans, F. E.) On the stability of barrelled topologies. II. 81m:46006a

See also Robertson, W. J.; et al., 81m:46006b

Valdivia, Manuel On certain barrelled normed spaces. (French summary) 81d:46006

On subseries convergent sequences. 81a:46008

Yeomans, F. E. See Robertson, W. J., 81a:46007; Tweddle, I., 81m:46006a and Robertson, W. J.; et al., 81m:46006b

secondary classifications:

De Wilde, Marc (with Tsirolnikov, Bella) Barrelledness and the supremum of two locally convex topologies. (81d:46004)

Iyaben, S. O. A note on the closed graph and open mapping theorems. (81b:46007)

Tsirolnikov, Bella Subspaces with property (b) in locally convex spaces of quasibarrelled type. (81d:46004)

See also De Wilde, Marc, (81d:46004)

Valdivia, Manuel A characterization of echelon Köthe-Schwartz spaces. (81d:46009)

46A09 Bornological spaces

Mascart, H. Bornologies. (French) 81a:46009

Swart, Johan Applications of Schwartz bornologies. 81g:46005

secondary classifications:

De Wilde, Marc ★Closed graph theorems and webbed spaces. (81j:46013)

Dierolf, Susanne The barrelled space associated with a bornological space need not be bornological. (81d:46005)

Govaerts, W. Bornological spaces of vector-valued continuous functions. (81f:46052)

Kera, Kazuo (with Kitsunezaki, Naoki; Terao, Yutaka) Countable-codimensional subspaces of topological vector spaces. (81c:46002)

Kitsunezaki, Naoki See Kera, Kazuo; et al., (81c:46002)

Kučera, J. (with McKennon, Kelly) Dieudonné-Schwartz theorem on bounded sets in inductive limits. (81d:46007)

McKennon, Kelly See Kučera, J., (81d:46007)

Niemel, Antti On bornology and Mikusiński operator theory. (81d:44006)

Schmets, Jean Spaces of vector-valued continuous functions. (81g:46046)

Terao, Yutaka See Kera, Kazuo; et al., (81c:46002)

Valdivia, Manuel A characterization of echelon Köthe-Schwartz spaces. (81d:46009)

On subseries convergent sequences. (81a:46008)

46A10 Locally bounded topological linear spaces

Gatesoupe, Michel Problèmes de complémentation d'une famille de sous-algèbres fermées de $A(T^2)$. 81m:46007

Nanda, Sudarsan (with Nayak, Krishna C.) On some paranormed function spaces. (Italian summary) 81j:46008

Nayak, Krishna C. See Nanda, Sudarsan, 81j:46008

Ribe, M. Examples for the nonlocally convex three space problem. 81a:46010

secondary classifications:

Elizalde, Jesús Bastero Convexity and boundedness in topological vector spaces over quasivalued fields. (Spanish. English summary) (81k:46078)

Riedrich, Thomas On vector-topological properties of zero-neighbourhoods of topological vector spaces. (81j:46010)

46A12 Spaces defined by special inductive or projective limits (LF, nuclear, Schwartz, Silva spaces, etc.) [See also 46M10, 46M40]

Agul'ó Fuster, Rafael Locally convex nuclear spaces. (Spanish. English summary) 81a:46011

Bessaga, Zdzisław (with Dubinsky, Ed) Nuclear Fréchet spaces without bases. III. Every nuclear Fréchet space not isomorphic to ω admits a subspace and a quotient space without a strong finite-dimensional decomposition. 81b:46004

Dubinsky, Ed (with Robinson, William) Quotient spaces of (s) with basis. 81g:46006

★The structure of nuclear Fréchet spaces. 81f:46004

See also Bessaga, Zdzisław, 81b:46004

Egghe, L. Characterizations of nuclearity in Fréchet spaces. 81f:46005

Floret, Klaus Some aspects of the theory of locally convex inductive limits. 81j:46009

Hollstein, Ralf Inductive limits and ϵ -tensor products. 81m:46008

Jarchow, Hans On a theorem of John and Zizler. 81m:46009

Kučera, J. (with McKennon, Kelly) Dieudonné-Schwartz theorem on bounded sets in inductive limits. 81d:46007

McKennon, Kelly A family of Kučera spaces. 81e:46003

See also Kučera, J., 81d:46007

Mitjagin, B. S. Geometry of nuclear spaces. I. Nuclear Fréchet spaces without basis. 81d:46008a

Geometry of nuclear spaces. II. Linear topological invariants. 81d:46008b

Geometry of nuclear spaces. III. Spaces of holomorphic functions. 81d:46008c

Prada Blanco, J. On nuclear sequence spaces. 81f:46006

Riede, Harald λ -assozierte Topologien. 81m:46010

Robinson, William See Dubinsky, Ed, 81g:46006

Vera Saravia, Edgar Locally convex spaces that are the injective limit of weakly compact injective sequences of locally convex spaces. (Spanish. English summary) 81b:46005

Vogt, Dietmar (with Wagner, Max-Josef) Charakterisierung der Quotientenräume von ω und eine Vermutung von Martineau. (English summary) 81k:46002

Wagner, Max-Josef See Vogt, Dietmar, 81k:46002

Wong, Yau Chuen ★Schwartz spaces, nuclear spaces and tensor products. 81b:46005

Zarimov, V. V. Compact families of locally convex spaces and FS and DFS spaces. (Russian) 81m:46011

Zarnadze, D. N. Reflexivity and best approximations in Fréchet spaces. (Russian) 81k:46003

secondary classifications:

Boland, Philip J. (with Dineen, Seán) Holomorphic functions on fully nuclear spaces. (French summary) (81b:46060)

Colombeau, J. F. (with Meise, Reinhold; Perrot, B.) A density result in spaces of Silva holomorphic mappings. (81i:46050)

Dineen, Seán See Boland, Philip J., (81b:46060)

Gejler, W. On extending and lifting continuous linear mappings in topological vector spaces. (81j:46011)

Hogbe-Nlend, Henri Le théorème de Per Enflo et la propriété d'approximation dans les espaces localement convexes. (81m:46015)

Kašlirin, V. V. Comparison of linear dimensions of some generalized power series spaces. (Russian summary) (81d:46002)

Meise, Reinhold See Colombeau, J. F.; et al., (81i:46050)

Perrot, B. See Colombeau, J. F.; et al., (81i:46050)

Schirmeler, Horst The geometric aspect of nuclearity. (81j:46021)

Thomas, Erik G. F. Integral representations of invariant reproducing kernels. (81c:46041)

Triš, Nicolae $l_{p,q}$ operators and (Φ, φ) -spaces. (81f:47027)

Valdivia, Manuel On certain barrelled normed spaces. (French summary) (81d:46006)

Watanabe, Osamu Nuclear spaces of abelian differentials on open Riemann surfaces. (Japanese) (81:30082)

46A14 Spaces defined by compactness properties (Montel spaces, etc.)

Valdivia, Manuel A characterization of echelon Köthe-Schwartz spaces. 81d:46009

46A15 Other topological linear spaces

Hejman, J. Boundedness and weak boundedness in topological vector groups. 81m:46012

Riedrich, Thomas On vector-topological properties of zero-neighbourhoods of topological vector spaces. 81j:46010

Saifou, H. (with Tweddle, I.) From B -completeness to countable codimensional subspaces via the closed graph theorem. 81b:46003

Todd, Aaron R. Coverings of products of linear topological spaces. 81b:46004

Tweddle, I. See Saifou, H., 81b:46003

secondary classifications:

Antoine, J.-P. Partial inner product spaces. III. Compatibility relations revisited. (81g:46032)

Cuartero Ruiz, Bienvenido A characterization of the compatible topologies in a vector space over a valued field in terms of families of functions homogeneous in absolute

value. (Spanish) (81m:46103)

- Film, Jörg (with Ziegler, Martin) ★ Topological model theory. (81j:03059)
 Gasy, M. D. Introduction to the theory of convexity-topological spaces. (81m:52002)
 Morrow, J. R. On basic sequences in nonlocally convex spaces. (81m:46016)
 Nakanishi, Shizu The space of distributions treated as a ranked space. (81k:46042)
 Némethi, Csaba On almost sequential locally convex spaces. II. (Romanian summary) (81j:46005)
 Ziegler, Martin See Film, Jörg. (81j:03059)

46A20 Duality theory

secondary classifications:

- Barr, Michael ★ \ast -autonomous categories. (81h:18008)
 Bonsall, F. F. (with Duncan, J.) Numerical ranges. (81m:47011)
 (Chu, Po Hsiang) See Barr, Michael. (81h:18008)
 Čučaev, I. I. See Geiler, V. A., (81m:46018)
 Duncan, J. See Bonsall, F. F., (81m:47011)
 Fragoulopoulou, Maria Integral representations of linear forms on topological algebras. (81f:46059)
 Geiler, V. A. (with Čučaev, I. I.) The general principle of local reflexivity and some of its applications in the theory of ordered spaces. (Russian) (81m:46018)
 Robertson, W. J. (with Yeomans, F. E.) On the stability of barrelled topologies. I. (81a:46007)
 (with Tweddle, L.; Yeomans, F. E.) On the stability of barrelled topologies. III. (81m:46006b)
 Tweddle, L. (with Yeomans, F. E.) On the stability of barrelled topologies. II. (81m:46006a)
 See also Robertson, W. J.; et al., (81m:46006b)
 Yeomans, F. E. See Robertson, W. J., (81a:46007); Tweddle, L., (81m:46006a) and Robertson, W. J.; et al., (81m:46006b)

46A22 Extension and lifting of functionals and operators [See also 46M10.]

- Aron, Richard M. Extension and lifting theorems for analytic mappings. 81i:46006
 Bittner, Leonhard Extension theorems of Hahn-Banach type and monotone operators. 81f:46007
 Fuchssteiner, Benno (with Horváth, John) Die Bedeutung der Schnitteigenschaften beim Hahn-Banachschen Satz. 81f:46008
 Geiler, W. On extending and lifting continuous linear mappings in topological vector spaces. 81j:46011
 Horváth, John See Fuchssteiner, Benno. 81f:46008
 Iwata, Kazuo Invariant extensions for linear functionals and supplement to the paper: "Totally ordered linear space structures and extension theorems" [Mem. Muroran Inst. Tech. 8 (1973/76), no. 3, 737-744; MR 57 #1072a]. 81e:46004
 Jiménez Guerra, Pedro Sur l'extension des fonctions additives continues sur semigroupes topologiques préordonnés. 81e:46005
 König, Heinz Der Hahn-Banach-Satz von Rodé für unendlichstellige Operationen. 81j:46012
 Matsuda, Minoru A remark on unique Hahn-Banach extensions. 81g:46007
 Some properties of general denting points. 81g:46008

46A25 Reflexivity and semi-reflexivity

Sekovanov, V. S. B -inductively reflexive locally convex spaces. (Russian) 81m:46013

secondary classifications:

- Floret, Klaus On bounded sets in inductive limits of normed spaces. (81k:46076)
 Vera Saravia, Edgar Locally convex spaces that are the injective limit of weakly compact injective sequences of locally convex spaces. (Spanish. English summary) (81c:46005)
 Webb, J. H. Inductively reflexive spaces with extended Schauder decompositions. (81f:46003)

46A30 Open mappings and closed graph theorems and completeness (including B -, B -completeness)

- Bellenot, Steven F. An anti-open mapping theorem for Fréchet spaces. 81b:46006
 De Wilde, Marc ★ Closed graph theorems and webbed spaces. 81j:46013
 Hussein, Deeb Some results on hereditary complete space. (Arabic summary) 81a:46012
 Iyaben, S. O. A note on the closed graph and open mapping theorems. 81f:46007
 Krishnasamy, V. $B(T)$ spaces and the closed graph theorem. 81a:46013
 Mennicken, R. (with Sagraloff, Boris) Characterizations of nearly-openness. 81e:46004
 Piotrowski, Zbigniew Somewhat continuity on linear topological spaces implies continuity. 81a:46014
 Sagraloff, Boris See Mennicken, R., 81e:46004
 Talov, S. M. Some results in the theory of topological vector spaces. (Russian. Tajiki summary) 81f:46009

secondary classifications:

- Mennicken, R. (with Sagraloff, Boris) On Banach's closed range theorem. (81c:47005)
 Sagraloff, Boris See Mennicken, R., (81c:47005)
 Saifu, H. (with Tweddle, L.) From B -completeness to countable codimensional subspaces via the closed graph theorem. (81h:46003)
 Tweddle, L. See Saifu, H., (81h:46003)
 Wilhelm, Marek Relations among some closed graph and open mapping theorems. (81c:54017)
 On closed graph theorems in topological spaces and groups. (81b:54012)
 Topological versions of the closed graph and open mapping theorems. (81m:54027)

46A32 Spaces of linear operators

- Baker, J. M. Operator representation of weakly Cauchy sequences in projective tensor products of Banach spaces. 81g:46009
 Levanov, V. A. Operator analogues of the Krein-Mil'man theorem. (Russian) 81h:46005
 Müller, Bernd Convergence tensor products and a strict topology. 81j:46014

secondary classifications:

- Meyer-Nieberg, Peter Ein elementarer Beweis einer Charakterisierung von M -Räumen. (81e:46017)
 Prolla, João Bosco The approximation property for Nachbin spaces. (81j:46030)
 Ruess, W. Spaces of compact operators on Banach spaces. (81m:47059)

46A35 Summability and bases

- Drewnowski, L. F -spaces with a basis which is shrinking but not hyper-shrinking. 81m:46014
 Haslinger, Friedrich Generalized Abel-Gončarov bases in spaces of holomorphic functions. 81d:46010
 A dual relationship between generalized Abel-Gončarov bases and certain Pincherle bases. 81d:46011
 Hughe-Niend, Henri Le théorème de Per Enflo et la propriété d'approximation dans les espaces localement convexes. 81m:46015
 Kondakov, V. P. The orderable absolute bases in F -spaces. (Russian) 81j:46015
 Morrow, J. R. On basic sequences in nonlocally convex spaces. 81m:46016

secondary classifications:

- Kazarjan, K. S. The property of being a basis, for subsystems of the trigonometric system in the space $L^p(dp)$, $1 < p < \infty$. (Russian. Armenian summary) (81j:42012)
 Kondakov, V. P. Properties of bases of some Köthe spaces and their subspaces. (Russian) (81c:46007)
 Webb, J. H. Inductively reflexive spaces with extended Schauder decompositions. (81f:46003)

46A40 Ordered topological linear spaces, vector lattices [See also 06F20, 46B30.]

- Allprantis, Charalambos D. (with Burkinshaw, Owen) On the structure of locally solid topologies. 81i:46007
 (with Burkinshaw, Owen) Minimal topologies and L_p -spaces. 81c:46005
 de Branges, Louis Vector lattice topology. 81m:46017
 Burkinshaw, Owen See Allprantis, Charalambos D., 81c:46005 and Allprantis, Charalambos D., 81i:46007
 Chu, Cho Ho (with Wright, J. D. Maitland) A theory of types for convex sets and ordered Banach spaces. 81j:46016
 Čučaev, I. I. See Geiler, V. A., 81m:46018
 Flösser, Hans-Otto Das Zentrum archimedischer Vektorverbände. 81d:46012
 Geiler, V. A. (with Čučaev, I. I.) The general principle of local reflexivity and some of its applications in the theory of ordered spaces. (Russian) 81m:46018
 Grangé, Marcel Sur les espaces vectoriels réticulés atomiques. 81c:46006
 Grigore, Gheorghe Propriétés topologiques des ensembles α -annulables. 81m:46019
 Huijsmans, C. B. (with de Pagter, B.) On z -ideals and d -ideals in Riesz spaces. I. 81g:46010
 Isobe, Kiro On a generalization of ϵ -countable sup property in Riesz spaces. 81b:46008
 Kosmol, Peter (with Schill, Walter; Wriedt, Michael) Der Satz von Banach-Steinhaus für konvexe Operatoren. 81f:46010
 Kutateladze, S. S. The Krein-Mil'man theorem and its converse. (Russian) 81g:46011
 Levanov, V. A. Internal characterizations of some classes of supporting sets. (Russian) 81k:46004
 Lipceki, Z. Extension of vector-lattice homomorphisms. 81b:46009
 Muni, Giuseppe Riesz-Stone algebras and spaces. (Italian) 81e:46006
 Ng, Kung Fu On a theorem of Birkhoff. 81b:46010
 A duality theory in ordered linear spaces. 81f:46011
 An introduction to ordered spaces. 81i:46008
 de Pagter, B. See Huijsmans, C. B., 81g:46010
 Schill, Walter See Kosmol, Peter; et al., 81f:46010
 Şerban-Tofan, Doina Spaces of regular operators. (Romanian. French summary) 81h:46006
 Šuš'ga, D. D. Some properties of ordered α -spaces. (Russian) 81b:46012
 Thimmet, Wolfgang Zum Satz von Tucker in halbgeordneten Vektorräumen. (English and Russian summaries) 81g:46012
 Wriedt, Michael See Kosmol, Peter; et al., 81f:46010
 Wright, J. D. Maitland See Chu, Cho Ho, 81j:46016
 Xu, Shi Ying Order convergence in linear topological spaces. (Chinese) 81j:46017

secondary classifications:

- Arsove, Maynard (with Leutwiler, Heinz) Algebraic potential theory. (81f:31002)
 Bandt, Christoph (with Peters, W.) Extension of semimeasures and topologization of vector structures. (Russian) (81k:28007)
 Beddingfield, Susan E. (with Wirth, Andrew) Norm and order properties of Banach lattices. (81g:46028)
 Brosowski, Bruno The completion of partially ordered vector spaces and Korovkin's theorem. (81d:06030)
 van Casteren, Jan A. A characterization of C^* -subalgebras. (81h:46009)
 Cristescu, Romulus Sur la représentation intégrale de certains opérateurs linéaires. (81k:47050)
 Feyel, Denis Relations entre ensembles clairsémés et ensembles semi-polaires. (English summary) (81k:54048)

- Grus, Christian Approche de la dualité en optimisation multicritère. (81f:90116)
 Gudder, Stanley P. Axiomatic operational quantum mechanics. (81h:81012)
 Guz, Wawrzyniec Conditional probability in quantum axiomatics. (81k:81006)
 Handelman, David (with Higgs, Denis; Lawrence, John W.) Directed abelian groups, countably continuous rings, and Rickart C^* -algebras. (81g:46100)
 Higgs, Denis See Handelman, David; et al. (81g:46100)
 Istomin, V. V. Cones in abelian groups. (Russian) (81k:22002)
 Ivan, Floarea Separators algebra. (81c:28005)
 Jiménez Guerra, Pedro Sur l'extension des fonctions additives continues sur semigroupes topologiques préordonnés. (81e:46005)
 Koshl, Shono Vector spaces with linear order. (81b:06012)
 Lawrence, John W. See Handelman, David; et al. (81g:46100)
 Leutwiler, Heinz See Aronov, Maynard, (81f:31002)
 Milnorov, A. V. Some properties of partially ordered topological vector spaces and algebras. (Russian) (81b:47047)
 Peters, W. See Bandt, Christoph, (81k:28007)
 Smitschik, S. V. Conoids and linear operators that leave them invariant. (Russian) (81m:47054)
 Takeo, Fukiho The absolute value of an element of the complexification of a simplex space. (81f:46015)
 Théra, Michel Calcul ϵ -sous-différentiel des applications convexes vectorielles. (English summary) (81i:46046)
 Vekster, A. I. Normal measures on compact spaces and order continuous functionals on vector lattices. (81h:28010)
 Watanabe, Hisako Theorems of Korovkin type in an ordered vector space with a locally convex topology. (81h:41028)
 Wickstead, Anthony Extensions of orthomorphisms. (81h:47049)
 Wirth, Andrew See Beddingfield, Susan E., (81g:46028)

46A45 Sequence spaces (including Köthe sequence spaces)

- Bourgain, Jean An averaging result for c_0 -sequences. 81d:46013
 Deeb, W. (with Hussein, Deeb) Results on $L(f)$ spaces. (Arabic summary) 81e:46007
 Hannein, Deeb See Deeb, W., (81e:46007)
 Kaitlin, V. V. Comparison of linear dimensions of certain Köthe spaces. (Russian) 81j:46018
 Kondakov, V. P. Properties of bases of some Köthe spaces and their subspaces. (Russian) 81e:46007
 Lenke, R. Jeffrey Monotone resolution sequence spaces and mappings. 81j:46019
 Lee, Peng Yee Köthe duals and matrix transformations. 81f:46011
 Ramamujan, M. S. (with Terzioğlu, T.) Compact and nuclear maps on power series spaces. 81h:46007
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 Tort Pinilla, Mammel On the Köthe duality in intersections of l^p spaces. (Spanish) 81m:46020
 Wagner, Max-Josef Quotientenräume von stabilen Potenzreihenräumen endlichen Typs. (English summary) 81m:46021
 Wu, Cong Xin Some problems of nuclear perfect spaces. (Chinese. English summary) 81m:46022

secondary classifications:

- Arazy, Jonathan Some remarks on interpolation theorems and the boundness of the triangular projection in unitary matrix spaces. (81k:47056a)
 Addendum: "Some remarks on interpolation theorems and the boundness of the triangular projection in unitary matrix spaces". (81k:47056b)
 A remark on complemented subspaces of unitary matrix spaces. (81g:47044)
 Biel, Ron C. Interpolation sets and extensions of the Grothendieck inequality. (81j:43017)
 Bourgain, Jean l^∞/c_0 has no equivalent strictly convex norm. (81b:46029)
 Dineen, Seán Holomorphic functions on nuclear sequence spaces. (81i:46051)
 Drewnowski, L. F -spaces with a basis which is shrinking but not hyper-shrinking. (81m:46014)
 Dubinsky, Ed (with Robinson, William) Quotient spaces of (s) with basis. (81g:46006)
 ★The structure of nuclear Fréchet spaces. (81f:46004)
 Goes, Günther Multipliers between Lipschitz spaces and Zygmund spaces. (81j:42020)
 Ishiguro, Kazuo (with Zeller, Karl) Vorgegebene Grenzübergänge auf nichtisolierten Mengen. (81c:30079)
 Jakimovski, A. (with Russell, D. C.) On beta-duals of matrix fields. (81d:40004)
 James, Robert C. Renorming the Banach space c_0 . (81k:46014)
 Kizmaz, H. Some certain type of sequence spaces and matrix transformations. (Turkish summary) (81c:40008)
 Maddox, I. J. Some analogues of Knopp's core theorem. (81m:40012)
 Ng, Peng Nung Matrix transformations on Cesàro sequence spaces of a nonabsolute type. (81m:40008)
 Prada Blanco, J. On nuclear sequence spaces. (81f:46006)
 Riede, Harald λ -assozierte Topologien. (81m:46010)
 Robinson, William See Dubinsky, Ed, (81g:46006)
 Russell, D. C. See Jakimovski, A., (81d:40004)
 Samuel, C. Sur la reproductibilité des espaces l_p . (81e:46061)
 Skorik, A. I. Isometries of a class of ideal coordinate spaces. (Russian) (81j:47021)
 Vogt, Dietmar (with Wagner, Max-Josef) Charakterisierung der Quotientenräume von s und eine Vermutung von Martineau. (English summary) (81k:46002)
 Wagner, Max-Josef See Vogt, Dietmar, (81k:46002)
 Wilansky, Albert The μ property of FK spaces. (81k:40009)
 Zeller, Karl See Ishiguro, Kazuo, (81c:30079)

46A50 Compactness in topological linear spaces

secondary classifications:

- Banica, Radu Study of the completion of linear topological spaces by nonstandard

- methods. (Romanian. English summary) (81g:03082)
 Bourgain, Jean (with Talagrand, Michel) Compacité extrême. (81h:46011)
 Nazin, G. I. Topological structure of a family of solutions of the Bogoljubov equation. (Russian. English summary) (81i:82008)
 Talagrand, Michel See Bourgain, Jean, (81h:46011)
 Voigt, Jürgen On Y -closed subspaces of X , for Banach spaces $X \subset Y$; existence of alternating elements in subspaces of $C(J)$. (81b:47028)

46A55 Convexity, Choquet theory [See also 52A07.]

- Alpay, Safak A localization of the equal support property. (Turkish summary) 81k:46005
 On the projective tensor product of compact convex sets with the strong equal support property. (Turkish summary) 81k:46006
 Andersen, Tage Bal A characterization of metrizable simplexes. 81k:46007
 Becker, Richard Quelques propriétés des mesures coniques. 81i:46009
 Bourgain, Jean A note on extreme points in duals. 81d:46014
 On the representation of two-dimensional unconditional and symmetric norms. 81j:46013
 Briem, Eggert A characterization of simplexes by parallel faces. 81e:46008
 Ellis, A. J. (with Roy, A. K.) Dilated sets and characterizations of simplexes. 81e:46008
 Fischer, Pal (with Holbrook, J. A. R.) Balayage defined by the nonnegative convex functions. 81f:46012
 Gregory, David A. Upper semicontinuity of subdifferential mappings. 81e:46009
 Holbrook, J. A. R. See Fischer, Pal, 81f:46012
 Olsen, Gunnar Hans On simplexes and the Poulsen simplex. 81f:46013
 Phelps, R. R. Integral representations for elements of convex sets. 81m:46023
 Roy, A. K. See Ellis, A. J., 81e:46008
 Saah, Paulette La représentation intégrale de Choquet dans le cas vectoriel. (English summary) 81f:46014
 The Choquet integral representation in the affine vector-valued case. 81j:46020
 Schirmeier, Horst The geometric aspect of nuclearity. 81j:46021
 Stépán, Josef Simplicial measures. 81d:46015
 Probability measures with given expectations. 81h:46008
 Takeo, Fukiho The absolute value of an element of the complexification of a simplex space. 81f:46015
 Thomas, Erik G. F. Représentation intégrale dans les cônes convexes. (English summary) 81f:46016
 v. Weizsäcker, Heinrich (with Winkler, G.) Noncompact extremal integral representations: some probabilistic aspects. 81f:46017
 Winkler, G. See v. Weizsäcker, Heinrich, 81f:46017

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- Alfsen, Erik M. On the geometry of state spaces. (81i:46083)
 (Bauer, Heinz) See Lembecke, Jörn, (81c:46014)
 Becker, Richard Sur les cônes inf-stables de fonctions continues sur un espace compact. (81m:46040)
 Choy, Stephen T. L. Vector and semigroup valued measures. (81c:28007)
 Debs, Gabriel Quelques propriétés des espaces α -favorables et applications aux convexes compacts. (English summary) (81m:54055)
 Deumlich, Reinhard (with Elster, Karl-Heinz; Nehse, Reinhard) Recent results on separation of convex sets. (German and Russian summaries) (81m:52005)
 Elster, Karl-Heinz See Deumlich, Reinhard; et al., (81m:52005)
 Golodnikov, A. N. (with Ljasko, S. I.) Method of minimizing functionals with respect to distribution functions and its application in probability theory. (81j:90103)
 Itô, Masayuki Positive eigen elements for an infinitesimal generator of a diffusion semigroup and their integral representations. (81m:31002)
 Kutateladze, S. S. Linear problems of convex analysis. (Russian) (81f:52003)
 Lembecke, Jörn Note zu: "Funktionengekugel und Integralungleichungen" [Bayer. Akad. Wiss. Math.-Natur. Kl. Sitzungsber. 1977, 53–61 (1978); MR 80f:46023] von H. Bauer. (81c:46014)
 Ljasko, S. I. See Golodnikov, A. N., (81j:90103)
 Nadler, Sam B., Jr. (with Quinn, Joseph E.; Stavrakas, Nick M.) Hyperspaces of compact convex sets. (81e:57019)
 Nehse, Reinhard See Deumlich, Reinhard; et al., (81m:52005)
 Quinn, Joseph E. See Nadler, Sam B., Jr.; et al., (81e:57019)
 Roy, A. K. Convex functions on the dual ball of a complex Lindenstrauss space. (81b:46026)
 Saint-Pierre, Jean Points exposés d'une multiapplication à valeurs convexes de \mathbb{R}^n . (English summary) (81j:90099)
 Stavrakas, Nick M. See Nadler, Sam B., Jr.; et al., (81e:57019)
 Ustinov, G. M. Convergence of positive operators. (Russian) (81j:41039)
 Zhanok, T. A. Separation of random convex sets. (Russian) (81m:60021)

46A99 None of the above, but in this section

- Albrecht, Ernst (with Neumann, Michael) Automatic continuity of generalized local linear operators. 81m:46024
 Appel, Ju. Measures of noncompactness and approximations in locally convex spaces. (Russian) 81k:46008
 Naidu, S. Venkata Ratnam See Sastry, K. P. R., 81b:46013
 Neumann, Michael See Albrecht, Ernst, 81m:46024
 Prada Blanco, J. A generalisation of certain results of G. Jameson. 81a:46015
 Sastry, K. P. R. (with Naidu, S. Venkata Ratnam) Convexity conditions in metric linear spaces. 81b:46013
 Thayer F., F. Javier Lifting positive elements. 81a:46016

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- Bottesch, Martin Invariante Mittel für Vektorfunktionen. (81h:43003)
 Degroof, E. A few more results on the linear hull in convexity spaces. (81k:52003)

- Eggle, L.** The Radon-Nikodým property, σ -dentability and martingales in locally convex spaces. (81m:46054)
- Enrich, M.** A theorem of Borsuk-Ulam type for multifunctions. (81h:55001)
- Fischer, Pal** (with Skłodowski, Zbigniew) Christensen zero sets and measurable convex functions. (81d:28013)
- Goldman, M. A.** Compactness and relative compactness of sets in topological spaces. (Russian) (81h:54023)
- Govindarajulu, P.** (with Pai, D. V.) On properties of sets related to f -projections. (81d:41039)
- Heděnkova, N. N.** Summation by $T(C)$ -class methods in linear topological spaces. (Russian summary) (81m:40003)
- Kram, Przemysław** Continuity of an additive function on a topological vector space. (81c:39005)
- Linke, Ju. E.** (with Tolstogov, A. A.) Properties of spaces of sublinear operators. (Russian) (81a:46051)
- Mäger, G.** Metrizability of compact sets and continuous selections. (81h:54017)
- Pai, D. V.** See Govindarajulu, P., (81d:41039)
- Restrepo, Guillermo** Continuity of polynomials in topological vector spaces. (Spanish) (81k:58003)
- Skłodowski, Zbigniew** See Fischer, Pal, (81d:28013)
- Tolstogov, A. A.** See Linke, Ju. E., (81a:46051)

46Bxx Normed linear spaces and Banach spaces (For function spaces, see 46Exx.)

Tzafriri, Lior Some directions of research in Banach space theory. 81f:46018

secondary classifications:

- Banach, Stefan** ★Euvres. Vol. II. (81f:46001)
- (Bessaga, Czesław) See Banach, Stefan, (81f:46001)
- (Mazur, Stanisław) See Banach, Stefan, (81f:46001)
- (Orlicz, Władysław) See Banach, Stefan, (81f:46001)
- (Perczyński, Aleksander) See Banach, Stefan, (81f:46001)
- (Rutkowski, Stefan) See Banach, Stefan, (81f:46001)
- (Żelazko, Wiesław) See Banach, Stefan, (81f:46001)
- Bibliography:**
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46B05 Topology in terms of the norms

- Diminnie, Charles R.** (with White, Albert G., Jr.) Strict convexity conditions for seminorms. 81g:46014
- (with Gähler, Siegfried; White, Albert G., Jr.) Remarks on strictly convex and strictly 2-convex 2-normed spaces. 81b:46014
- Gähler, Siegfried** See Diminnie, Charles R.; et al., 81b:46014
- Godefroy, Gilles** Étude des projections de norme 1 de E'' sur E . Unité de certains préduaux. Applications. (English summary) 81e:46010
- Hagler, James** (with Sullivan, Francis E.) Smoothness and weak* sequential compactness. 81i:46010
- Jandarov, V. O.** On separable B -spaces. (Russian. Georgian and English summaries) 81k:46009
- John, K.** (with Zizler, V.) On extension of rotund norms. II. 81h:46009
- Johnson, William B.** (with Lindenstrauss, Joram) Correction to: "Some remarks on weakly compactly generated Banach spaces" [Israel J. Math. 17 (1974), 219-230; MR 54 #5808]. 81g:46015
- Lima, Asvald** Banach spaces with the 4.3. intersection property. 81i:46011
- Lindenstrauss, Joram** See Johnson, William B., 81g:46015
- Mislar, D. H.** The notion of a normed space of cotype $p < 2$. (Russian) 81i:46012
- Petunin, Ju. I.** (with Pičko, A. M.) ★Теория характеристик подпространств и её приложения. (Russian) [The theory of the characteristics of subspaces and its applications] 81m:46025
- Phaler, Gilles** De nouveaux espaces de Banach sans la propriété d'approximation [d'après A. Szankowski]. 81i:46014
- Pičko, A. M.** Existence of a bounded total biorthogonal system in a Banach space. (Russian) 81e:46011
- See also Petunin, Ju. I., 81m:46025
- Reinov, O. I.** Purely topological characteristics of operators of RN type. (Russian) 81c:46009
- Restrepo, Guillermo** Convergence of sequences in Banach spaces. (Spanish) 81h:46010
- Schaffer, Juan Jorge** Bounds for automorphisms of normed spaces. 81f:46019
- Sullivan, Francis E.** See Hagler, James, 81i:46010
- Szankowski, A.** The space of all bounded operators on Hilbert space does not have the approximation property. 81d:46013
- See also Phaler, Gilles, 81i:46014
- Trojanski, S. L.** Locally uniformly convex norms. (Russian) 81h:46015
- Equivalent norms that are uniformly convex and uniformly differentiable in every direction. (Russian) 81d:46016
- White, Albert G., Jr.** See Diminnie, Charles R.; et al., 81b:46014 and Diminnie, Charles R., 81g:46014
- Zizler, V.** See John, K., 81h:46009

secondary classifications:

- Bourgain, Jean** Sets with the Radon-Nikodým property in conjugate Banach space. (81h:46014)
- Bridges, Douglas S.** More on the connectivity of convex sets. (81f:03071)
- Goldstein, Jerome A.** An operator semigroup version of the Edmunds-Moscattelli example. (81f:47041)
- Huhakov, V. T.** The coincidence of two cross-norms connected with order. (Russian. English summary) (81b:46081)

- Matsuda, Minoru** A remark on unique Hahn-Banach extensions. (81g:46007)
- Pach, A. J.** Flat spots and super-reflexivity in normed spaces. (81h:46017)
- Wage, Michael L.** Weakly compact subsets of Banach spaces. (81g:46002)

46B10 Duality and reflexivity

- Bourgain, Jean** (with Talagrand, Michel) Compacité extrême. 81h:46011
- Brown, Leon** (with Ito, Takashi) Isometric preduals of James spaces. 81d:46017
- Chivukula, R. Rao** (with Sundaresan, K.) Finite representation of Banach spaces—smoothness. 81h:46016
- Godefroy, Gilles** Espaces de Banach: existence et unicité de certains préduaux. (English summary) 81i:46015
- Ito, Takashi** See Brown, Leon, 81d:46017
- Odell, E. A.** A normalized weakly null sequence with no shrinking subsequence in a Banach space not containing l_1 . 81g:46016
- Pach, A. J.** Flat spots and super-reflexivity in normed spaces. 81h:46017
- Shirey, James** On the theorem of Helley [Helly] concerning finite-dimensional subspaces of a dual space. 81k:46010
- Stegall, Charles** A proof of the principle of local reflexivity. 81e:46012
- Sundaresan, K.** See Chivukula, R. Rao, 81h:46016
- Talagrand, Michel** Certaines formes linéaires pathologiques sur un espace de Banach dual. (English summary) 81g:46017
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secondary classifications:

- Beauzamy, Bernard** Quelques propriétés topologiques des espaces d'interpolation dans le cadre général. (English summary) (81h:46041)
- Chummat, Jacques** Unité du préduel. (English summary) (81a:46057)
- Dor, Leonard E.** On basis constants and duality in Banach spaces. (81g:46018)
- Godefroy, Gilles** Étude des projections de norme 1 de E'' sur E . Unité de certains préduaux. Applications. (English summary) (81e:46010)
- Hackenbroch, Wolfgang** A noncommutative Strassen disintegration theorem. (81f:28016)
- Lapresté, Jean-Thierry** Sur une propriété des suites asymptotiquement inconditionnelles. (81i:46017)
- Singer, Ivan** Extension with larger norm and separation with double support in normed linear spaces. (81h:46024)

46B15 Summability and bases

- Décoret, Bruno** Suites de décomposition d'un espace de Banach à base inconditionnelle. Noyaux d'opérateurs définis sur certains espaces d'opérateurs. 81i:46016
- Dor, Leonard E.** On basis constants and duality in Banach spaces. 81g:46018
- Feder, Moshe** On subspaces of spaces with an unconditional basis and spaces of operators. 81m:46026
- Gurarii, V. I.** The existence of a nonhereditary complete family in an arbitrary separable Banach space. (Russian. English summary) 81h:46018
- Lapresté, Jean-Thierry** Sur une propriété des suites asymptotiquement inconditionnelles. 81i:46017
- Pičko, A. M.** Construction of bounded fundamental and total biorthogonal systems from unbounded systems. (Russian. English summary) 81h:46012
- Pokalo, A. K.** Summation of integrals in a Banach space with a Cesàro approximate unit. Multiplicative operators. Bernstein's theorem. I. (Russian. English summary) 81k:4601a
- Summation of integrals in a Banach space with a Cesàro approximate unit. Asymptotic formulas. Jackson type theorem. II. (Russian. English summary) 81k:4601b
- Raimi, Ralph A.** Factorization of summability-preserving generalized limits. 81m:46027
- Rakov, S. A.** The Banach-Saks property for a Banach space. (Russian) 81i:46018
- Schechtman, Gideon** A simple proof of two theorems concerning bases of $C(0,1)$. 81i:46019
- Singer, Ivan** On Banach spaces in which every M -basis is a generalized summation basis. 81a:46017

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- Ciesielski, Z.** Equivalence, unconditionality and convergence a.e. of the spine bases in L_p spaces. (81j:41014)
- Enflo, P.** (with Starbird, T. W.) Subspaces of L^1 containing L^1 . (81j:46034)
- Maleev, R. P.** Conditionally convergent series in some Banach lattices. (Russian) (81g:46029)
- Moran, Gad** On a theorem of Steinitz and Levy. (81c:40004)
- Schütt, Carsten** Unconditionality in tensor products. (81h:46082)
- Starbird, T. W.** See Enflo, P., (81j:46034)
- Swartz, Charles** Orlicz-Pettis topologies in function spaces. (81h:46024)
- Szarek, Stanisław Jerzy** Nonexistence of Besselian basis in $C(S)$. (81k:46022)
- Trenz, Paolo** Properties of structure and completeness, in a Banach space, of the sequences without an infinite minimal subsequence. (Italian summary) (81e:46014)
- Ulrich, David** Divided differences and systems of nonharmonic Fourier series. (81i:42034)

46B20 Geometry and structure

- Andreeva, T. V.** Orthogonality of elements to a sum of subspaces. (Russian) 81d:46018
- Arias de Reyna, Martínez, Juan** Dense hyperplanes of first category. 81g:46019
- Badzianov, S. B.** See Timonov, V. M.; et al., 81a:46022
- Beauzamy, Bernard** Réitération de modèles étales. 81d:46019
- Banach-Saks properties and spreading models. 81a:46018
- Propriété de Banach-Saks. 81i:46020
- Beesack, Paul R.** (with Hughes, Edward; Ortel, Marvin) Rotund complex normed

- linear spaces. **81e:46013**
- Belobrov, P. K.** Minimal extension of linear functionals onto the second conjugate space. (Russian) **81m:46028**
- Besaga, Zdzisław** A Lipschitz invariant of normed linear spaces related to the entropy numbers. **81f:46020**
- Bouznay, Adnan P.** A counterexample to a general stability result in universal spaces. **81m:46029**
- A remark on the farthest point problem. **81k:46012**
- Bourgain, Jean** Un espace ℓ^∞ jouissant de la propriété de Schur et de la propriété de Radon-Nikodým. **81b:46019**
- An averaging result for l^1 -sequences and applications to weakly conditionally compact sets in L^1 . **81i:46021**
- On separable Banach spaces, universal for all separable reflexive spaces. **81f:46021**
- Bynum, W. L.** Normal structure coefficients for Banach spaces. **81m:46030**
- Capon, Michèle** Primarité de $L^p(I)$, $1 < p, r < \infty$. **81f:46022**
- Primarité de $L^p(X)$. (English summary) **81f:46023**
- Primarité de $L^p(L^1)$. **81f:46022**
- Figiel, T.** (with Tomczak-Jaegermann, Nicole) Projections onto Hilbertian subspaces of Banach spaces. **81f:46024**
- (with Johnson, William B.) Large subspaces of l_∞^n and estimates of the Gordon-Lewis constant. **81m:46031**
- Globevnik, J.** Separability of analytic images of some Banach spaces. **81j:46022**
- Godini, G.** Geometrical properties of a class of Banach spaces including the spaces c_0 and L^p ($1 < p < \infty$). **81b:46020**
- On minimal points. **81j:46023**
- Gordon, Y.** p -local unconditional structure of Banach spaces. **81j:46024**
- Guerre, Sylvie** (with Lapresté, Jean-Thierry) Quelques propriétés des espaces de Banach stables. (English summary) **81f:46025**
- Hennefeld, Julien** A note on M -ideals in $B(X)$. **81b:46021**
- Hughes, Edward** See **Bessack, Paul R.**; et al., **81e:46013**
- Ismagilov, R. S.** See **Thomirov, V. M.**; et al., **81a:46022**
- Istrătescu, Vasile I.** On complex strictly convex spaces. III. (Italian summary) **81k:46013**
- James, Robert C.** Renorming the Banach space c_0 . **81k:46014**
- Johnson, William B.** Banach spaces all of whose subspaces have the approximation property. **81m:46032**
- See also **Figiel, T.**, **81m:46031**
- Josefson, Bengt** Bounding subsets of $l^\infty(A)$. **81a:46019**
- Konjagin, S. V.** Approximation properties of closed sets in Banach spaces and the characterization of strongly convex spaces. (Russian) **81b:46022**
- Lapresté, Jean-Thierry** See **Guerre, Sylvie**, **81f:46025**
- Lasky, Wolfgang** A note on rotations in separable Banach spaces. **81c:46010**
- Negrepontis, S.** Combinatorial techniques in functional analysis. **81a:46020**
- Nguyen To Nhu** p -spaces and L^p -spaces. **81f:46023**
- Oriel, Marvin** See **Bessack, Paul R.**; et al., **81e:46013**
- Partington, J. R.** Equivalent norms on spaces of bounded functions. **81b:46013**
- Pietsch, Albrecht** Open problems, presented at the third seminar (Poland-GDR) on operator ideals and geometry of Banach spaces, Georgenthal, April 2-11, 1979. **81k:46015**
- Pisier, Gilles** Semi-groupes holomorphes et géométrie des espaces de Banach. (English summary) **81j:46025**
- Proffa, João Bosco** Differential functions on Banach spaces and the approximation property. (Portuguese) **81b:46023**
- Reinov, O. I.** On hereditarily dentable sets in Banach spaces. (Russian. English summary) **81b:46024**
- Reisner, Shlomo** On Banach spaces having the property G.L. **81b:46025**
- Roy, A. K.** Convex functions on the dual ball of a complex Lindenstrauss space. **81b:46026**
- Sănguș, A. G.** B_p -convex spaces. (Russian. Georgian and English summaries) **81g:46020**
- Schechtman, Gideon** On the relation between several notions of unconditional structure—a counterexample. **81g:46021**
- A tree-like Tsevelon space. **81b:46027**
- Schwartz, Laurent** Geometry and probabilities in Banach spaces. **81b:46028**
- Singer, Ivan** Extension with larger norm and separation with double support in normed linear spaces. **81i:46024**
- Soltan, V. P.** Metrically extremal and boundary points of convex sets in a normed space. (Russian) **81k:46016**
- Talagrand, Michel** Espaces de Banach faiblement \mathcal{K} -analytiques. **81a:46021**
- Terenzi, Paolo** Properties of structure and completeness, in a Banach space, of the sequences without an infinite minimal subsequence. (Italian summary) **81e:46014**
- Thomirov, V. M.** (with Ismagilov, R. S.; Babadzanov, S. B.) Geometry of Banach space and diameters of sets. (Russian) **81a:46022**
- Tomczak-Jaegermann, Nicole** Finite-dimensional subspaces of uniformly convex and uniformly smooth Banach lattices and trace classes S_p . **81j:46026**
- See also **Figiel, T.**, **81f:46024**
- Tzafriri, Lior** On the type and cotype of Banach spaces. **81g:46022**
- Yorke, A. C.** Differentiability and local roundness. **81m:46033**
- secondary classifications:
- Babadzanov, S. B.** Extremal subspaces and asymptotic behavior of n -diameters of a class of functions in the space L_p ($p > 1$). (Russian) **(81e:41021)**
- Besuzamny, Bernard** Quelques propriétés topologiques des espaces d'interpolation dans le cadre général. (English summary) **(81b:46041)**
- Behrends, Ehrhard** $\star M$ -structure and the Banach-Stone theorem. **(81b:46002)**
- Billard, Pierre** Sur la primarité des espaces $C(n)$. **(81f:46036)**
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 Floret, Klaus Some aspects of the theory of locally convex inductive limits. (81j:46009)
 von Grudzinski, Olaf Examples of solvable and nonsolvable convolution equations in $\mathcal{S}'_p, p \geq 1$. (81h:45009)
 Hussein, Deeb Some results on hereditary complete space. (Arabic summary) (81a:46012)
 Jannsen, A. J. E. M. ★Application of the Wigner distribution to harmonic analysis of generalized stochastic processes. (81d:60045)
 Kondrat'ev, Ju. G. (with Samoilenko, Ju. S.) Operators of the type of number of particles and the smoothness of functions of infinitely many variables. (Russian) (81k:46055)
 Melguet, Jean A convolution approach to multivariate representation formulas. (81c:41076)
 Ouadess, Mohamed Structure d'a.s.b.m.c. de $\mathcal{Q}^m(\Omega)$. Applications: théorème de

- Bochner $\mathcal{Q}(\Omega)$, \mathcal{S} et \mathcal{S}' . (81b:46064)
 Pinchard, Louis The theory of distributions and the axioms of electromagnetism. (81j:78013)
 Rjabcev, I. I. Operational calculus in terms of perfect operators. (Russian) (81b:44015)
 Samoilenko, Ju. S. See Kondrat'ev, Ju. G., (81k:46055)
 Schenk, Dieter Hyperbolische Gleichungen in Ultradistributionen und singuläre Schrödingeroperatoren. (81i:35094)
 Sommen, F. See Delange, Richard, (81j:46029b)
 Sprinkhuizen-Kuyper, Ida G. A fractional integral operator corresponding to negative powers of a certain second-order differential operator. (81h:47044)
 Thalheimer, W. See Constantinescu, Fl., (81j:81041)
 Thomas, Erik G. F. Integral representations of invariant reproducing kernels. (81c:46041)
 Triebel, Hans Spaces of distributions with weights. Multipliers in L_p -spaces with weights. (81c:46022)
 Voigt, Jürgen See Dierolf, Peter, (81d:46041)
 Ziemian, Bogdan On G -invariant distributions. (81h:58023)

46F10 Operations with distributions

- Ambrose, W. Products of distributions with values in distributions. 81f:46054
 Anderson, Ronald M. (with Sartain, Robert L.) The Carleman-Fourier transform of a product. 81h:46040
 Antosik, P. Some characterizations of measures and smooth functions in distributions. 81b:46055
 (with Ligzsa, Jan) Products of measures and functions of finite variations. 81b:46056
 Berg, Lothar Noncommutative operations with distributions. 81d:46040
 Černík, Ju. I. Shift operators in the theory of generalized functions. (Russian) 81c:46029
 Clorănescu, Ioana (with Zsidó, László) A minimum modulus theorem and applications to ultradifferential operators. 81k:46030
 Dierolf, Peter (with Voigt, Jürgen) Convolution and S' -convolution of distributions. 81d:46041
 Gindikin, S. G. See Volevič, L. R., 81b:46057; Volevič, L. R., 81d:46044 and Volevič, L. R., 81i:46044
 von Grudzinski, Olaf Temperierte Beurling-Distributionen. 81g:46048
 Hussein, Deeb A sufficient condition for w -hyperbolic convolution operators. 81m:46057
 Jagolnitzer, Daniel Singular spectrum of products of distributions at $u=0$ points. 81j:46062
 Itimie, Viorel Sur l'invariance des distributions semi-régulières. 81a:46041
 Ivanov, V. K. (with Šarin, V. I.) The relation between products of generalized functions. (Russian) 81k:46043
 An associative algebra of elementary generalized functions. (Russian) 81j:46063
 An algebra of elementary generalized functions. (Russian) 81j:46064
 Jones, Douglas Samuel Infinite integrals and convolution. 81k:46044
 Kecs, Wilhelm ★Produsul de convoluție și aplicații. (Romanian) [The convolution product and its applications] 81c:46031
 Keller, Klaus Irregular operations in quantum field theory. II. Evaluation functionals and products, convolutions, integrals of distributions. 81k:46045
 Koronov, M. K. Associative and Leibniz algebras of distributions. (Russian) 81d:46042
 Laugwitz, D. A nonstandard approach to distributions and operational calculus. 81d:46043
 Ligzsa, Jan See Antosik, P., 81b:46056
 McKennon, Kelly The multiplication functions of Kučera. 81c:46032
 Orner, Norbert Sur la convolution des distributions. (English summary) 81e:46025
 Owa, Shigeo On the fractional partial derivative and its application. 81k:46046
 Pandey, Jagdish N. On the positive definiteness of a functional. 81i:46043
 Šarin, V. I. Some formulas for products of distributions depending on a quadratic form. (Russian) 81a:46042
 See also Ivanov, V. K., 81k:46043
 Sartain, Robert L. See Anderson, Ronald M., 81h:46040
 Širokov, Ju. M. Algebra of one-dimensional generalized functions. (Russian, English summary) 81c:46033
 Algebra of three-dimensional generalized functions. (Russian, English summary) 81c:46034
 Szak, Árpád Generalized periodic distributions. 81a:46044
 Periodic generalized functions. 81a:46043
 Szmajder, S. (with Zielezny, Z.) On some properties of convolution operators in \mathcal{S}'_q and \mathcal{S}' . 81c:46035
 Voigt, Jürgen See Dierolf, Peter, 81d:46041
 Volevič, L. R. (with Gindikin, S. G.) Unbounded operators in scales of spaces and boundary value problems for Wiener-Hopf equations in a half-space. (Russian) 81b:46057
 (with Gindikin, S. G.) The Wiener-Hopf equation for smooth and generalized functions in a half-space. (Russian) 81d:46044
 (with Gindikin, S. G.) The Wiener-Hopf equation in generalized functions that are smooth on a half-line. (Russian) 81h:46044
 Yger, Alain Propriétés de certains systèmes d'équations de convolution dans \mathbb{R}^2 . (English summary) 81c:46036
 Zielezny, Z. See Szmajder, S., 81c:46035
 Zsidó, László See Clorănescu, Ioana, 81k:46030

secondary classifications:

- Albrecht, Ernst (with Neumann, Michael) Automatic continuity of generalized local linear operators. (81m:46024)
 Berenstein, Carlos A. (with Lesmes, J.) The Cauchy problem for convolution operators. Uniqueness. (81a:35099)
 Conlon, Joseph G. Fundamental solutions for the anisotropic neutron transport equation. (81i:82075)

- Homentcovschi, Dorel On the determination of a vector field with given curl and divergence. (Romanian. English summary) (81k:35012)
- Komatsu, Hiromasa An analogue of the Cauchy-Kowalevsky theorem for ultradifferentiable functions and a division theorem for ultradistributions as its dual. (81i:35008)
- Laurent-Thiébaud, Christine Produits de courants. (English summary) (81e:58009)
- Lesmes, J. See Berenstein, Carlos A. (81a:35099)
- Milne, Ronald Douglas ★Applied functional analysis. (81j:46001)
- Nerostavskii, O. M. Wigner quantification and informal deformation of the algebras of functions on \mathbb{R}^{2N} . (Russian. English summary) (81k:81048)
- Neumann, Michael See Albrecht, Ernst. (81m:46024)
- Pinchard, Louis Regularization procedures and distributions in electrostatics and magnetostatics. (81j:78012)
- Širokov, Ju. M. Strongly singular potentials in one-dimensional quantum mechanics. (Russian. English summary) (81d:81015)
- Strongly singular potentials in three-dimensional quantum mechanics. (Russian. English summary) (81d:81019)
- Sree Hari Rao, V. Integral inequalities of Gronwall type for distributions. (81a:26013)
- Smaydt, Zofia On homogeneous rotation invariant distributions and the Laplace operator. (81k:43012a)
- (with Ziemian, Bogdan) Fundamental solution E_n of the operator $\partial^2/\partial t^2 - \Delta_n$ for $n > 3$. (81k:43012c)
- Wiener, Joseph Generalized-function solutions of linear systems. (81m:34106)
- Zeilberger, Doron A new proof of Ehrenpreis's semilocal quotient structure theorem. (81m:32008)
- Ziemian, Bogdan On distributions invariant with respect to some linear transformations. (81k:43012b)
- See also Smaydt, Zofia. (81k:43012c)

46F12 Integral transforms in distribution spaces [See also 42-XX, 44-XX.]

- Corwin, L. (with Greenleaf, F. P.) Singular Fourier integral operators and representations of nilpotent Lie groups. (81k:46055)
- Drožžinov, Ju. N. (with Zav'jalov, B. I.) Tauberian theorems for generalized functions with carriers in the cones. (Russian) (81k:46045)
- Greenleaf, F. P. See Corwin, L. (81f:46055)
- Jeanquartier, Pierre Transformation de Mellin et développements asymptotiques. (81g:46049)
- Kaminski, A. Distributors and Rényi's theory of conditional probabilities. (81g:46050)
- Kannal, Yakov Local analyticity of Fourier transforms. (81k:46047)
- McBride, Adam C. ★Fractional calculus and integral transforms of generalized functions. (81d:46045)
- Orton, Marion The generalized Abel equations for Schwartz distributions. (81k:46048)
- Pandey, Jagdish N. See Pathak, Ram S. (81b:46058) and Tiwari, U. N. (81m:46058)
- Pathak, Ram S. (with Pandey, Jagdish N.) The Kontorovich-Lebedev transformation of distributions. (81b:46058)
- Pilićević, S. The space of generalized functions whose elements have a Laguerre expansion—the sequential approach. (Serbo-Croatian. English summary) (81d:46046)
- Rečkovski, Nikola S. Analytic representation of certain pseudofunctions. (Russian. Macedonian summary) (81k:46049)
- Sundaram, Kokila On a representation of $W_{k,m}$ -transformable distributions. (81g:46051)
- Tiwari, A. K. A distributional generalized Stieltjes transformation. (81j:46065)
- Tiwari, U. N. (with Pandey, Jagdish N.) The Mehler-Fock transform of distributions. (81m:46058)
- Wong, R. Distributional derivation of an asymptotic expansion. (81j:46066)
- Zav'jalov, B. I. See Drožžinov, Ju. N. (81a:46045)
- Zinov'ev, Ju. M. Lorentz-invariant distributions and the Laplace transform. (81b:46041)

secondary classifications:

- Arpad, Takaci The field of exponential operators. (Serbo-Croatian. English summary) (81c:44007)
- Bhonsle, B. R. (with Prabhu, R. A.) An inversion formula for a distributional finite-Hankel-Laplace transformation. (81d:44003)
- Corwin, L. (with Greenleaf, F. P.) Fourier transforms of smooth functions on certain nilpotent Lie groups. (81f:22012)
- Gahovik, A. S. Operational calculus of rapidly increasing functions. (Russian) (81c:44002)
- Greenleaf, F. P. See Corwin, L. (81f:22012)
- Lambert, André The Jost-Lehmann-Dyson representation for a wide class of local fields. (81m:81038)
- McKennon, Kelly A family of Kučera spaces. (81e:46003)
- Osipov, V. F. Some questions of spectral synthesis on subsets of Euclidean spaces. (Russian. English summary) (81i:43011)
- Pal'cev, B. V. A class of convolution equations on a finite interval. (Russian) (81c:45005)
- Pandey, Jagdish N. See Pathak, Ram S. (81c:44009) and Tiwari, U. N. (81f:44012)
- Pathak, Ram S. (with Pandey, Jagdish N.) A distributional Hardy transformation. (81c:44009)
- Plüß, A. F. Integral representation of a class of generalized functions of quantum field theory. (Russian) (81j:81039)
- Prabhu, R. A. See Bhonsle, B. R. (81d:44003)
- Solov'ev, M. A. Ruelle's theorem and the theory of quasianalytic classes of functions. (Russian. English summary) (81g:81044)
- Struble, Raymond A. Functions meromorphic in right half-planes are Laplace transforms. (81c:44006)
- Tiwari, U. N. (with Pandey, Jagdish N.) The Stieltjes transform of distributions. (81f:44012)
- Vladimirov, V. S. (with Zav'jalov, B. I.) Tauberian theorems in quantum field theory.

(Russian. English summary) (81c:81032)

Zav'jalov, B. I. See Vladimirov, V. S. (81c:81032)

46F15 Hyperfunctions, analytic functionals [See also 32A25, 32A45, 32C35, 58G07.]

- Bengel, G. (with Schapira, P.) Décomposition microlocale analytique des distributions. (English summary) (81k:46050)
- Ito, Yoshifumi On the theory of vector-valued hyperfunctions. (81c:46037)
- Morimoto, Mitsuo (with Yoshino, Kunio) A uniqueness theorem for holomorphic functions of exponential type. (81g:46052)
- A generalization of the Fourier-Borel transformation for the analytic functionals with nonconvex carrier. (81j:46067)
- de Roeper, J. W. Analytic representations and Fourier transforms of analytic functionals in Z' carried by the real space. (81d:46047)
- Schapira, P. See Bengel, G. (81k:46050)
- Tkačenko, V. A. Solvability of an inhomogeneous equation of convolution type in spaces of analytic functionals. (Russian) (81a:46046)
- Yoshino, Kunio See Morimoto, Mitsuo. (81g:46052)

secondary classifications:

- Gay, Roger Divisions des fonctionnelles analytiques. Applications aux fonctions moyennes périodiques. (81h:32003)
- Ivanov, V. K. (with Sarin, V. I.) The relation between products of generalized functions. (Russian) (81k:46043)
- An associative algebra of elementary generalized functions. (Russian) (81j:46063)
- An algebra of elementary generalized functions. (Russian) (81j:46064)
- Kashiwara, Masaki (with Kawai, Takahiro) Second-microlocalization and asymptotic expansions. (81i:58038)
- Microlocal analysis. (81i:35129)
- Kataoka, Kiyoomi Micro-local theory of boundary value problems. I. Theory of mild hyperfunctions and Green's formula. (81i:58039)
- Kawai, Takahiro See Kashiwara, Masaki. (81i:58038)
- Lebeau, Gilles Fonctions harmoniques et spectre singulier. (81m:58072)
- Sarin, V. I. Some formulas for products of distributions depending on a quadratic form. (Russian) (81a:46042)
- See also Ivanov, V. K. (81k:46043)
- Žarinov, V. V. Compact families of locally convex spaces and FS and DFS spaces. (Russian) (81m:46011)

46F20 Distributions as boundary values of analytic functions [See also 30Exx, 32A40.]

- Kalpirovskii, O. I. Analytic representation of generalized functions of S' -type. (Russian. English summary) (81m:46059)
- Sommen, F. Distributional boundary values of hypercomplex functions. (81k:46051)

secondary classifications:

- Bengel, G. (with Schapira, P.) Décomposition microlocale analytique des distributions. (English summary) (81k:46050)
- Brackx, F. See Delanghe, Richard. (81j:46029a)
- Cirova, I. S. See Troickii, V. E. (81i:81085)
- Delanghe, Richard (with Sommen, F.) Hypercomplex function theory and representation of distributions. (81j:46029b)
- (with Brackx, F.) Duality in hypercomplex function theory. (81j:46029a)
- Dudnikov, P. I. See Gorbachuk, M. L.; et al. (81m:30031)
- Fedorova, L. B. See Gorbachuk, M. L.; et al. (81m:30031)
- Gorbachuk, M. L. (with Dudnikov, P. I.; Fedorova, L. B.) Boundary values of analytic functions. (Russian) (81m:30031)
- Schapira, P. See Bengel, G. (81k:46050)
- Smirnov, V. A. Singular structure of the Feynman diagrams. (Russian. English summary) (81i:81017)
- Sommen, F. See Delanghe, Richard. (81j:46029b)
- Tougeron, Jean-Claude Sur les fonctions C^∞ et les distributions qui appartiennent à la classe de Bernstein. (English summary) (81h:32017)
- Troickii, V. E. (with Cirova, I. S.) Analytic functionals in the representation of phase shifts. (Russian. English summary) (81i:81085)

46F25 Distributions on infinite-dimensional spaces [See also 58C35.]

secondary classifications:

- Berezans'kii, Ju. M. ★Самосопряженные операторы в пространствах функций бесконечного числа переменных. (Russian) [Selfadjoint operators in spaces of functions of an infinite number of variables] (81d:47035)
- (Mitropol'skii, Ju. A.) See Berezans'kii, Ju. M. (81d:47035)

46F99 None of the above, but in this section

- Berg, Lothar Values in a distribution algebra. (81c:46038)
- Distribution algebras with reflexive inverses. (81h:46042)
- Černov, V. G. π -homogeneous spherically symmetric generalized functions on K^n . (Russian) (81c:46053)
- Dolezal, Václav Passive operators defined on spaces of distributions. (81d:46048)
- Moreau, Jean-Jacques Duality characterization of strain tensor distributions in an arbitrary open set. (81c:46039)
- (with Ros, M.) Tenseurs de distributions dérivées secondes sur un ouvert de E' . (81h:46043)
- Ros, M. See Moreau, Jean-Jacques. (81h:46043)

- Sommen, F. Representations of distributions in \mathbb{R}^2 by regular functions of a quaternion variable. **81h:46044**
- White, R. E. Value set at $x \in \Omega$ for an arbitrary distribution with applications to local extrema of $f \in C(\Omega)$ and a maximum principle for ordinary differential equations. **81d:46049**

secondary classifications:

- Dimitrov, M. M. Poisson's summation formula for distributions. (Russian) **(81h:42006)**
- Kashiwara, Masaki (with Kawai, Takahiro) On holonomic systems for $\Pi_{l-1}^N(l_f + (\sqrt{-1})^N)$. **(81f:32004)**
- Kawai, Takahiro See Kashiwara, Masaki, **(81f:32004)**
- Plaff, Rainer Gewöhnliche lineare Differentialgleichungen n -ter Ordnung mit Distributionskoeffizienten. (English summary) **(81h:34006)**
- See Hari Rao, V. Gronwall-Bellman type inequalities to distributions. **(81g:26013)**
- Tkačenko, V. A. Spectral expansions in spaces of analytic functionals. (Russian) **(81g:47021)**

46GXX Measures, integration, derivative (For integration on infinite-dimensional spaces, see 28C20; for nonlinear functional analysis, see 58-XX, especially 58Cxx.)

46G05 Derivatives

- Colombeau, J. F. Sur les applications différentiables et analytiques au sens de J. Sebastião e Silva. **81g:46054**
- Differentiable mappings on real nuclear Silva spaces and applications. **81g:46055**
- Dorfman, I. Ja. The rotation and divergence of vector fields on a Hilbert space. (Russian) **81h:46045**
- Lemaréchal, Claude (with Nurminkil, E. A.) Sur la différentiabilité de la fonction d'appui du sous-différentiel approché. (English summary) **81m:46060**
- Nurminkil, E. A. See Lemaréchal, Claude, **81m:46060**
- Rjabikova, I. N. See Zabreiko, P. P., **81h:46047**
- Théra, Michel Calcul ϵ -sous-différentiel des applications convexes vectorielles. (English summary) **81h:46046**
- Zabreiko, P. P. (with Rjabikova, I. N.) On the theory of higher-order derivatives for operators in Banach spaces. (Russian) **81h:46047**

secondary classifications:

- Dierolf, Peter (with Voigt, Jürgen) Weak compactness of Fréchet derivatives: application to composition operators. **(81h:47062)**
- Dryer, Thomas A. W., III Analytic evolution equations in Banach spaces. **(81k:35158)**
- Ekeland, Ivar (with Temam, Roger) ★Выпуклый анализ и вариационные проблемы. (Russian) [Convex analysis and variational problems] **(81h:49002)**
- Hiriart-Urruty, Jean-Baptiste (with Thibault, Lionel) Existence et caractérisation de différentielles généralisées d'applications localement lipschitziennes d'un espace de Banach séparable dans un espace de Banach réflexif séparable. (English summary) **(81h:90125)**
- Johnson, David L. (with Lahr, Charles D.) Multipliers of tensor products of CMA's and Radon-Nikodým derivatives. **(81j:43010)**
- Kieltyka, Stanisław The generalization of the theorem on directional derivative for the functional maximum and some of its applications. **(81a:59007)**
- Lahr, Charles D. See Johnson, David L., **(81j:43010)**
- Lerašov, V. A. Subdifferentials of sublinear operators in spaces of continuous functions. (Russian) **(81k:47074)**
- Maeda, Michie Some remarks on type $(\tau, 1)$ -cylindrical measures. **(81e:28009)**
- Nemeth, A. B. Strictly positive linear functionals and Pareto subgradients of minimal range. **(81f:90082)**
- Neuenhuis, J. W. Another application of Guignard's generalized Kuhn-Tucker conditions. **(81g:90094)**
- Perata, Jean-Claude Caractérisation du sous-différentiel associé à un problème de minimisation convexe à contrainte vectorielle. Application au calcul des variations. (English summary) **(81h:90120)**
- Pera, Giovanni Quasiconformal mappings in normed spaces. **(81g:30031)**
- Rockafellar, R. T. Generalized directional derivatives and subgradients of nonconvex functions. **(81f:49006)**
- Sachs, Ekkehard Differentiability in optimization theory. **(81d:49013)**
- Schikhof, W. H. ★Non-Archimedean calculus. **(81h:46087)**
- Non-Archimedean differentiation. **(81h:46086)**
- Šilov, G. E. ★Дифференцирование функций в линейных пространствах. (Russian) [Differentiation of functions in linear spaces] **(81c:26001)**
- Temam, Roger See Ekeland, Ivar, **(81h:49002)**
- Thibault, Lionel Épidifférentiels de fonctions vectorielles. (English summary) **(81f:49015)**
- See also Hiriart-Urruty, Jean-Baptiste, **(81h:90125)**
- (Thomov, V. M.) See Ekeland, Ivar; et al., **(81h:49002)**
- Voigt, Jürgen See Dierolf, Peter, **(81h:47062)**
- Weinstein, Alan The order and symbol of a distribution. **(81g:58037)**
- (Zabreiko, P. P.) See Šilov, G. E., **(81c:26001)**

46G10 Vector-valued measures and integration [See also 28Bxx, 46B22.]

- Bourgin, Richard D. Partial orderings for integral representations on convex sets with the Radon-Nikodým property. **81h:46045**
- Buchwalter, Henri Le rôle des partitions continues de l'unité dans la théorie des mesures scalaires ou vectorielles. **81e:46026**
- Cooper, J. B. (with Schachermayer, W.) Saks spaces and vector-valued measures. **81a:46047**
- Ghoussoub, Nassif A. (with Saab, Elias) On the weak Radon-Nikodým property. **81j:46068**

- Ivan, Floarea Sum-functions with values in Banach spaces. **81c:46040**
- de Korvin, André (with Roberts, Charles E., Jr.) Interchange of vector-valued integrals when the measures are Bochner or Pettis indefinite integrals. **81j:46069**
- Mariyama, Toru Integration of correspondences and a variational problem with operator constraint. **81h:46048**
- Nougues-Sainte-Beuve, Marie-France Some topological properties of vector measures with bounded variation and its applications. **81d:46050**
- Mesures vectorielles localement à variation bornée: quelques propriétés et applications. **81d:46051**
- Poleze, Radu Sur la représentation intégrale des mesures à valeurs dans des espaces d'opérations définies sur des champs de vecteurs. (Romanian summary) **81a:46048**
- Roberts, Charles E., Jr. See de Korvin, André, **81j:46069**
- Saab, Elias On the Radon-Nikodým property in a class of locally convex spaces. **81h:46046**
- See also Ghoussoub, Nassif A., **81j:46068**
- Schachermayer, W. See Cooper, J. B., **81a:46047**
- Sims, Brailley A geometric proof for some simple cases of martingale convergence. **81g:46056**
- Šipoš, Ján Integral representations of nonlinear functionals. (Russian summary) **81d:46052**

secondary classifications:

- Anantharaman, R. (with Naimpally, S. A.) Boundedness and equicontinuity of measures and linear functionals. **(81a:28009)**
- Brook, Cecilia H. (with Graves, William H.) The range of a vector measure. **(81e:28003)**
- Bulavov, A. V. The Radon-Nikodým property in Banach spaces of measurable vector-valued functions. (Russian) **(81h:46025)**
- Butković, Davor On the completion of vector measures. **(81h:28007)**
- Castaing, Charles Un résultat de compacité lié à la propriété des ensembles Dunford-Pettis dans $L^1_0(\Omega, \mathcal{G}, \mu)$. **(81j:46059)**
- Cheney, C. A. (with de Korvin, André) Erratum: "The representation of linear operators on spaces of finitely additive set functions" [Proc. Edinburgh Math. Soc. (2) 20 (1976/77), no. 3, 233-242; MR 57 #12814]. **(81e:28004)**
- Clarke, Frank H. Nonsmooth analysis and optimization. **(81e:90006)**
- Debiève, Camille Intégration de fonctions scalaires par rapport à une mesure vectorielle. (English summary) **(81f:28009)**
- Dobrákov, Ivan On integration in Banach spaces. III. (Russian summary) **(81h:28008)**
- On integration in Banach spaces. IV. **(81m:28006)**
- On integration in Banach spaces. V. **(81m:28007)**
- Duchon, Miloslav Convolution algebra of vector-valued measures. **(81a:43002)**
- Flytzanis, Elias Linearly varying Banach-valued measures. **(81e:28008)**
- Graves, William H. See Brook, Cecilia H., **(81e:28003)**
- Ingleby, Michael (with Tonga, Marcel) Operator-valued Daniell spaces and observables. **(81j:28019)**
- Kac, M. P. Measures with values in a space not containing c_0 . (Russian) **(81h:28009)**
- Khurana, Surjit Singh Weak sequential convergence in L^1_μ and Dunford-Pettis property of L^1_μ . **(81g:28007)**
- de Korvin, André See Cheney, C. A., **(81e:28004)**
- Labuda, Ivo Universal measurability and summable families in tvs. **(81e:28009)**
- Lascar, Bernard Opérateurs pseudo-différentiels en dimension infinie. Étude de l'hypoellipticité de la résolubilité dans des classes de fonctions holdériennes et de distributions pour des opérateurs pseudo-différentiels elliptiques. **(81a:35077)**
- Masé, J. Claude Intégration dans les semi-groupes. **(81e:28005)**
- Muntean, Ioan Sur le théorème de convexité de Liapounoff. (Romanian summary) **(81m:28010)**
- Musiał, Kazimierz (with Ryll-Nardzewski, Czesław) Liftings of vector measures and their applications to RNP and WRNP. **(81d:46053)**
- Martingales of Pettis integrable functions. **(81m:28011)**
- Naimpally, S. A. See Anantharaman, R., **(81a:28009)**
- Niemel, Hannu On the construction of Wold decomposition for multivariate stationary processes. **(81g:60039)**
- Pachl, Jan K. A note on the Orlicz-Pettis theorem. **(81c:28010)**
- Phan Van Chu'ng Version paramétrique du théorème de Krein-Mil'man et théorèmes de densité pour les applications multivoques mesurables. **(81g:90074)**
- Reinov, O. I. Purely topological characteristics of operators of RN type. (Russian) **(81c:46009)**
- A class of universally measurable mappings. (Russian) **(81e:46015)**
- Ryll-Nardzewski, Czesław See Musiał, Kazimierz, **(81d:46053)**
- Saab, Elias A characterization of w^* -compact convex sets having the Radon-Nikodým property. (French summary) **(81c:46011)**
- Saab, Paulette La représentation intégrale de Choquet dans le cas vectoriel. (English summary) **(81f:46014)**
- Saworotnow, Parfeny P. Linear spaces with an H^* -algebra-valued inner product. **(81m:46060)**
- Tonga, Marcel See Ingleby, Michael, **(81j:28019)**
- Ustinov, G. M. Linear operators in spaces of vector-valued affine functions. (Russian) **(81a:46039)**

46G12 Measures and integration on abstract linear spaces [See also 28Cxx.]

- Thomas, Erik G. F. Integral representations of invariant reproducing kernels. **81c:46041**

46G15 Lifting theory [See also 28A51.]

- Edgar, G. A. (with Talagrand, Michel) Liftings of functions with values in a completely regular space. **81g:46057**
- Johnson, Russell A. Strong liftings which are not Borel liftings. **81m:46061**
- Musiał, Kazimierz (with Ryll-Nardzewski, Czesław) Liftings of vector measures and their applications to RNP and WRNP. **81d:46053**

Ryll-Nardzewski, Czesław See *Mindak, Kazimierz*, 81d:46053
 Talagrand, Michel See *Edgar, G. A.*, 81g:46057

secondary classifications:

Babiker, A. G. A. G. (with Strauß, Werner) Measure spaces in which every lifting is an almost \mathcal{Q} -lifting. (81i:28011)
 (with Strauß, Werner) Almost strong liftings and τ -additivity. (81j:28011)
 Georgiou, P. On "idempotent" liftings. (81k:28006)
 Strauß, Werner See *Babiker, A. G. A. G.*, (81i:28011) and *Babiker, A. G. A. G.*, (81j:28011)

46G20 Infinite-dimensional holomorphy [See also 32-XX, 58B12, 58C10.]

Barroso, Jorge Alberto (with Nachbin, Leopoldo) Some topological properties of spaces of holomorphic mappings in infinitely many variables. 81i:46049
 Bianchini, M. (with Paques, O. W.; Zaine, M. C.) On the strong compact-ported topology for spaces of holomorphic mappings. 81h:46059
 Bierstedt, Klaus-Dieter (with Meise, Reinhold) Aspects of inductive limits in spaces of germs of holomorphic functions on locally convex spaces and applications to a study of $(H(U), \tau_u)$. 81k:46052
 Boland, Philip J. (with Dineen, Seán) Holomorphic functions on fully nuclear spaces. (French summary) 81h:46060
 Colombéau, J. F. A result of existence of holomorphic maps which admit a given asymptotic expansion. 81b:46061
 Holomorphic maps with a given asymptotic expansion at a boundary point. 81i:46056
 (with Meise, Reinhold; Perrot, B.) A density result in spaces of Silva holomorphic mappings. 81i:46050
 (with Perrot, B.) Convolution equations in spaces of infinite-dimensional entire functions of exponential and related types. 81h:46047
 Dineen, Seán Holomorphic functions on nuclear sequence spaces. 81i:46051
 See also *Boland, Philip J.*, 81h:46060
 Globevnik, J. On interpolation by analytic maps in infinite dimensions. 81m:46062
 On the ranges of analytic maps in infinite dimensions. 81e:46027
 On the range of analytic maps on $c_0(I)$. (Italian summary) 81k:46053
 Isidro, J. M. (with Mendez, J. P.) Topological duality on the function space $(\mathcal{C}(U, F), \tau_u)$. 81a:46049
 Mañós, Mário C. Correction to: "On Malgrange theorem for nuclear holomorphic functions in open balls of a Banach space" [Math. Z. 162 (1978), no. 2, 113-123; MR 58 #30226]. 81e:46028
 Meise, Reinhold See *Colombéau, J. F.*; et al., 81i:46050 and *Bierstedt, Klaus-Dieter*, 81k:46052
 Mendez, J. P. See *Isidro, J. M.*, 81a:46049
 Moraes, Lúcia Amália Theorems of the Cartan-Thullen type and Runge domains. 81i:46052
 Mujica, Jorge Spaces of germs of holomorphic functions. 81k:46054
 Nachbin, Leopoldo Warum unendlichdimensionale Holomorphie? 81i:46053
 See also *Barroso, Jorge Alberto*, 81i:46049
 Noverraz, Philippe Sur la mesure gaussienne des ensembles polaires en dimension infinie. 81d:46054
 Approximation of plurisubharmonic functions. 81j:46070
 Paques, Otilia T. Wiermann The approximation property for certain spaces of holomorphic mappings. 81d:46055
 See *Bianchini, M.*; et al., 81h:46059
 Perrot, B. See *Colombéau, J. F.*, 81h:46047 and *Colombéau, J. F.*; et al., 81i:46050
 Schottenloher, Martin An example of a locally convex space which is not an ω -space. 81d:46056
 Wang, Helen P. Locally analytically connected topologies. 81g:46058
 Zaine, M. C. See *Bianchini, M.*; et al., 81h:46059

secondary classifications:

Aron, Richard M. Polynomial approximation and a question of G. E. Shilov. (81d:46023)
 Extension and lifting theorems for analytic mappings. (81i:46006)
 Aurich, Volker Der invariante Kontinuitätssatz für meromorphe Funktionen. (English summary) (81f:32002)
 Colombéau, J. F. Sur les applications différentiables et analytiques au sens de J. Sebastião e Silva. (81g:46054)
 Guerreiro, Claudia S. Whitney's spectral synthesis theorem in infinite dimensions. (81d:32011)
 Hirai, Isamu (with Yanagihara, Niro) Difference equations in Banach spaces. (81k:39002)
 Josefson, Bengt Bounding subsets of $l^\infty(A)$. (81a:46019)
 Mañós, Mário C. On infinite-dimensional convolution operators. (81m:58015)
 Mujica, Jorge The Oka-Weil theorem in locally convex spaces with the approximation property. (81a:32014)
 Nishihara, Masaru On injective analytic mappings of infinite-dimensional complex manifolds. (81c:58010)
 Ortega Aramburo, Joaquín M. Some applications of a holomorphic functional calculus in infinite dimension. (Spanish) (81j:46078)
 Yanagihara, Niro See *Hirai, Isamu*, (81k:39002)

46G99 None of the above, but in this section

Berg, Lothar Introduction of integrals in ordered abelian semigroups with zero element. 81h:46062
 Johnson, G. W. (with Skoug, D. L.) An L_p analytic Fourier-Feynman transform. 81a:46050

Kondrat'ev, Ju. G. (with Samoilenko, Ju. S.) Operators of the type of number of particles and the smoothness of functions of infinitely many variables. (Russian) 81k:46055
 Linke, Ju. E. (with Tolstogov, A. A.) Properties of spaces of sublinear operators. (Russian) 81a:46051
 Mizuta, Yoshihiro Continuity of contractions in a functional Banach space. 81g:46059
 Peyrière, Jacques Regularity of spherical means. 81a:46052
 Samoilenko, Ju. S. See *Kondrat'ev, Ju. G.*, 81k:46055
 Skoug, D. L. See *Johnson, G. W.*, 81a:46050
 Tolstogov, A. A. See *Linke, Ju. E.*, 81a:46051

secondary classifications:

Bilyeu, Russell G. (with Lewis, Paul W.) Compact operators, weakly compact operators, and smooth points. (81m:47058)
 Duchon, Miloslav Fourier coefficients of continuous linear mappings on homogeneous Banach spaces. (Russian summary) (81c:42007)
 Edgar, G. A. Measurability in a Banach space. II. (81d:28016)
 Ekeland, Ivar Nonconvex duality. (81c:49005)
 Elworthy, K. D. Differential invariants of measures on Banach spaces. (81a:58019)
 Gaveau, Bernard (with Trauber, Philip) Opérateurs elliptiques et mesures invariants par le groupe de jauge sur l'espace des connexions. (English summary) (81g:58044)
 Kahn, Donald W. Introduction to global analysis. (81i:58001)
 Levin, V. L. (with Miljutin, A. A.) The problem of the displacement of masses with a discontinuous cost function and the mass formulation of the problem of the duality of convex extremal problems. (Russian) (81g:49009)
 Lewis, Paul W. See *Bilyeu, Russell G.*, (81m:47058)
 Miljutin, A. A. See *Levin, V. L.*, (81g:49009)
 Okazaki, Yoshiaki Wiener integral by stable random measure. (81a:60010)
 Penot, Jean-Paul Inversion à droite d'applications non linéaires. Applications. (English summary) (81m:58017)
 Restrepo, Guillermo Continuity of polynomials in topological vector spaces. (Spanish) (81k:58003)
 Sora, Miroslav The Laplace transform of exponentially bounded vector-valued functions (real conditions). (81a:44001)
 Toland, John F. On subdifferential calculus and duality in nonconvex optimization. (81m:49013)
 Trauber, Philip See *Gaveau, Bernard*, (81g:58044)

46Hxx Topological algebras, normed rings and algebras, Banach algebras [For group algebras, convolution algebras and measure algebras, see 43-XX.]

46H05 General theory

Amurarițel, Gheorghe Spectral properties in topological algebras. (Romanian. French summary) 81i:46054
 Auspelt, Bernard Propriétés spectrales des algèbres de Banach. (French) [Spectral properties of Banach algebras] 81i:46055
 Belfi, V. A. (with Doran, R. S.) Norm and spectral characterizations in Banach algebras. 81j:46071
 Bleyer, A. (with Preuss, W.) A note to general notions of the derivation and its applications. 81j:46072
 Doran, R. S. See *Belfi, V. A.*, 81j:46071
 Duncan, J. (with Hosseini, S. A. R.) The second dual of a Banach algebra. 81f:46057
 Edwards, C. M. Multipliers of JB-algebras. 81j:46073
 Fong, Che Kao A note on liftings of Hermitian elements and unitaries. 81h:46048
 Frolov, I. S. Morphisms of algebras that preserve the spectrum. (Russian) 81j:46074
 Hile, Gerald N. (with Pfaffenberger, W. E.) The relative spectrum of elements in a real Banach algebra. 81g:46060
 Hosseini, S. A. R. See *Duncan, J.*, 81f:46057
 Husain, Taqdir Infrasequential topological algebras. 81b:46063
 Jusubov, I. M. Corners of the numerical range in a Banach algebra. (Russian) 81d:46057
 Mallios, Anastasios On a convenient category of topological algebras. I. (Greek summary) 81d:46058
 On a convenient category of topological algebras. II. Applications. (Greek summary) 81d:46058
 Mocanu, Gh. A representation theorem for the space of the Hermitian elements in a Banach algebra. 81h:46049
 Oudass, Mohamed Structure d'a.b.m.c. de $\mathcal{Q}^m(I)$. Applications: théorème de Bochner $\mathcal{Q}(I)$, \mathcal{E} et \mathcal{S} . 81b:46064
 Pfaffenberger, W. E. See *Hile, Gerald N.*, 81g:46060
 Preuss, W. See *Bleyer, A.*, 81j:46072
 Selivanov, Ju. V. Biprojective Banach algebras. (Russian) 81h:46050
 Shing, Hu See *Srinivasan, V. K.*, 81e:46029
 Soldatov, A. P. On the Noether theory of operators. Wiener imbeddings of B-algebras. (Russian) 81c:46042
 Srinivasan, V. K. On some Gel'fand-Mazur like theorems in Banach algebras. 81e:46029
 (with Shing, Hu) A theorem in Banach algebras and its applications. 81e:46029
 Tonge, Andrew La presque-périodicité et les coalgèbres injectives. (English summary) 81j:46075

secondary classifications:

Allan, G. R. A remark in automatic continuity theory. (81m:46071)
 Bonsall, F. F. (with Duncan, J.) Numerical ranges. (81m:47011)
 Čilin, V. I. Topological O^* -algebras. (Russian) (81j:46067)
 Cuyt, Annie A. M. Abstract Padé-approximants in operator theory. (81g:41042)
 Duncan, J. See *Bonsall, F. F.*, (81m:47011)

- Esterle, Jean Sur la métrisabilité de certaines algèbres d'opérateurs. (81c:46002)
 Kanowitz, Herbert On compact multipliers of Banach algebras. (81j:47020)
 Paul, J. The trace of finite and nuclear elements in Banach algebras. (81a:47024)
 Warner, Seth A new approach to Gelfand-Mazur theory and the extension theorem. (81b:16030)

46H10 Ideals and subalgebras

- Bathia, B. T. Subalgebras of codimension 1 (noncommutative case). (Russian). Armenian and English summaries. 81d:46059
 Hussin, Taqdir (with Watson, Saleem) Algebras with unconditional orthogonal bases. 81i:46056
 Müller, Vladimir On domination problem in Banach algebras. 81c:46043
 Narmanija, V. G. Some subalgebras of topological algebras. (Russian) 81a:46053
 Ortega, J. M. A characterization of local Banach algebras of finite dimension. (Spanish. English summary) 81d:46060
 Watson, Saleem See Hussin, Taqdir, 81i:46056
 Zemineck, Jaroslav Spectral characterization of two-sided ideals in Banach algebras. (Russian) 81h:46051

secondary classifications:

- Esterle, Jean A complex-variable proof of the Wiener Tauberian theorem. (French summary) (81j:43016)

46H15 Representations

- Krupnik, N. Ja. Conditions for the existence of an n -symbol and a sufficient set of n -dimensional representations of a Banach algebra. (Russian) 81j:46076

secondary classifications:

- De-Michele, Leonede (with Figa-Talamanca, Alessandro) Positive definite functions on free groups. (81j:43012)
 Figa-Talamanca, Alessandro See De-Michele, Leonede, (81j:43012)

46H20 Structure, classification

- Carne, T. K. Not all H^* -algebras are operator algebras. 81m:46063
 Doran, R. S. An application of idempotents in the classification of complex algebras. 81b:46065
 Murphy, G. J. (with West, T. T.) Spectral radius formulae. 81a:46054
 Pisk, Vlastimil Commutators in Banach algebras. 81a:46055
 Scheffold, Egon Über komplexe Banachverbandalgebren. (English summary) 81m:46064
 Shing, Hu See Srinivasan, V. K., 81f:46058
 Srinivasan, V. K. (with Shing, Hu) On some Gelfand-Mazur-like theorems in p -normed algebras. 81f:46058
 Tomiak, B. J. Arens regularity and the algebra of double multipliers. 81m:46065
 West, T. T. See Murphy, G. J., 81a:46054

secondary classifications:

- Duncan, J. (with Hosseiniun, S. A. R.) The second dual of a Banach algebra. (81f:46057)
 Hosseiniun, S. A. R. See Duncan, J., (81f:46057)
 Khamli, Srinivacharyulu Nonassociative regular Banach algebras. (81h:17001)

46H25 Normed modules and Banach modules, topological modules (if not placed in 13-XX or 16-XX)

- Banikav, A. G. General ergodic theorems in Banach modules. (Russian) 81j:46077
 Helemskii, A. Ja. (with Šeinberg, M. V.) Amenable Banach algebras. (Russian) 81g:46061
 Pisk, Vlastimil Factorization in Banach algebras. 81i:46057
 Šeinberg, M. V. See Helemskii, A. Ja., 81g:46061
 Takahashi, Alonso Hilbert modules and their representation. 81k:46056
 A duality between Hilbert modules and fields of Hilbert spaces. 81k:46056
 Wright, Steve Banach-module valued derivations on C^* -algebras. 81g:46062

secondary classifications:

- Feichtinger, Hans G. A characterization of minimal homogeneous Banach spaces. (81j:43004)
 Gower, A. I. The best approximation in normed modules over semifields. (Russian) (81e:41050)
 Kalistr, R. K. Completeness of a free topological module generated by a discrete space. (Russian) (81g:16043)
 Longo, Roberto Automatic relative boundedness of derivations in C^* -algebras. (81f:46072)

46H30 Functional calculus [See also 47A60.]

- Akkas, Mohammed Théorie spectrale et calcul fonctionnel holomorphe d'un élément non régulier d'une algèbre m -complète. 81m:46066
 Ferrier, Jean-Pierre Théorie spectrale et approximation par des fonctions d'une infinité de variables. 81i:46058
 Ortega Aramburu, Joaquín M. Some applications of a holomorphic functional calculus in infinite dimension. (Spanish) 81j:46078

secondary classifications:

- Thomas, Marc Algebra homomorphisms and the functional calculus. (81g:46063)
 Zame, William R. Existence, uniqueness and continuity of functional calculus homomorphisms. (81i:46065)

46H99 None of the above, but in this section

- Fragoulopoulou, Maria Integral representations of linear forms on topological algebras. 81f:46059
 Störmer, Erling Regular abelian Banach algebras of linear maps of operator algebras. 81k:46057

secondary classifications:

- Ajupov, Š. A. Normal states on OJB-algebras. (Russian) (81j:46101)
 Albrecht, Ernst (with Neumann, Michael) Automatic continuity of generalized local linear operators. (81m:46024)
 Alfsen, Erik M. (with Hanche-Olsen, Harald; Shultz, Frederic W.) State spaces of C^* -algebras. (81g:46074)
 Aronovitz, John Spectral dynamical systems. (81g:54046)
 Chan, Ming Kam Characterisations of the right multipliers for $L_1(G, A)$. (81d:43006)
 Hanche-Olsen, Harald See Alfsen, Erik M.; et al., (81g:46074)
 Neumann, Michael See Albrecht, Ernst, (81m:46024)
 Seworotnow, Parfeny P. Linear spaces with an H^* -algebra-valued inner product. (81m:46000)
 Shultz, Frederic W. See Alfsen, Erik M.; et al., (81g:46074)
 Zuegg, Alfred Entwicklung des additiven Riemann'schen Integrals bzw. dessen Inversen nach iterierten Produktintegralen. (81e:26003)

46Jxx Commutative Banach algebras and commutative topological algebras

46J05 General theory

- Esterle, Jean Homomorphismes discontinus des algèbres de Banach commutatives séparables. (English summary) 81m:46067
 Theorems of Gelfand-Mazur type and continuity of epimorphisms from $\mathcal{C}(K)$. 81m:46068
 Lindberg, John A., Jr. Renorming a normed algebra having a semigroup of near isometries. 81a:46056
 Murphy, G. J. (with West, T. T.) Removing the interior of the spectrum. 81m:46069
 Sinclair, Allan M. Cohen elements in Banach algebras. 81c:46044
 Thomas, Marc Algebra homomorphisms and the functional calculus. 81g:46063
 Tong Han, Sureeyen Éléments héréditairement non nilpotents et analyse spectrale. (English summary) 81g:46064
 Verdera, Joan On finitely generated and projective extensions of Banach algebras. 81m:46070
 West, T. T. See Murphy, G. J., 81m:46069

secondary classifications:

- Mocanu, Gh. A representation theorem for the space of the Hermitian elements in a Banach algebra. (81h:46049)
 Narmanija, V. G. Some subalgebras of topological algebras. (Russian) (81a:46053)
 Wong, Pak Ken A note on isomorphisms of multiplier algebras. (81h:46064)

46J10 Banach algebras of continuous functions, function algebras

- Allan, G. R. A remark in automatic continuity theory. 81m:46071
 Aupetit, Bernard Sous-harmonie et algèbres de fonctions. 81k:46058
 Basov, A. V. Incomparability of two algebras of continuous functions on the sphere. (Russian. English summary) 81b:46066
 Berberian, S. K. The character space of the algebra of regulated functions. 81b:46067
 Cambers, Michael Isometries of modules of vector-valued functions. 81j:46079
 Čerých, Jan A generalized Bishop-Gončar construction. 81h:46052
 A characterization of $C(X)$. 81g:46065
 Chameat, Jacques Unité du préduel. (English summary) 81a:46057
 Dales, H. G. A discontinuous homomorphism from $C(X)$. 81g:46066
 Discontinuous homomorphisms from topological algebras. 81h:46069
 Feichtinger, Hans G. (with Graham, Colin C.; Lakić, Eric H.) Nonfactorization in commutative, weakly selfadjoint Banach algebras. 81f:46060
 Gamella, T. W. Uniform algebras and Jensen measures. 81a:46058
 Jensen measures, subharmonicity, and the conjugation operation. 81f:46061
 (with Sibony, Nessim) Subharmonicity for uniform algebras. 81f:46062
 Gilev, V. M. Maximal ideal spaces of invariant algebras. (Russian) 81a:46030
 Globevnik, J. On dominated extensions in function algebras. 81h:46060
 Graham, Colin C. See Feichtinger, Hans G.; et al., 81f:46060
 Grigorjan, Š. A. Regular and normal algebras. (Russian) 81g:46067
 Algebras of finite type on a compact group G . (Russian. Armenian and English summaries) 81b:46068
 (with Tonev, Toma V.) A characterization of the algebra of generalized analytic functions. (Russian) 81j:46080
 Hara, Mamoru On homeomorphisms of the unit circle preserving orientation. 81e:46031
 Hermann, Richard H. (with Takenouchi, Osamu) Extensions of d/dx . 81h:46053
 Kotz, Wesley Approximately normal function algebras which are local. 81h:46054
 Kramm, Bruno Complex analytic properties of certain uniform Fréchet-Schwartz algebras. 81g:46068
 Lakić, Eric H. See Feichtinger, Hans G.; et al., 81f:46060
 Lee, Hsuan-Pei Tame measures on certain compact sets. 81h:46061
 Lund, Bruce The endomorphisms of a Dirichlet algebra. 81m:46072

- Machado, S. (with Prolla, João Bosco) The general complex case of the Bernstein-Nachbin approximation problem. (French summary) **81g:46069**
- Mehta, R. D. A note on point derivations. **81a:46059**
- O'Farrell, Anthony G. A regular uniform algebra with a continuous point derivation of infinite order. **81h:46062**
- de Paepe, P. J. A maximal subalgebra of $R(X)$. **81a:46060**
- Essential function algebras with large Šilov boundary. **81a:46061**
- Maximality in function algebras. **81j:46081**
- Papacostas, Georges C. Le spectre de $(L_1 \oplus l_1)(R_+)$. **81m:46073**
- Prolla, João Bosco See Machado, S., **81g:46069**
- Russell, A. M. A commutative Banach algebra of functions of generalized variation. **81h:46055**
- A commutative Banach algebra of functions of bounded variation. **81a:46062**
- Sibony, Nessim See Gamella, T. W., **81f:46062**
- Sidney, S. J. Functions which operate on the real part of a uniform algebra. **81h:46069**
- Stolica, Lilianna Partial point derivations on Lipschitz algebras. **81m:46074**
- Takenouchi, Osamu See Herman, Richard H., **81h:46053**
- Tonev, Toma V. See Grigorjan, Š. A., **81j:46080**
- Wang, James Li Ming Approximation on boundary sets. **81e:46032**
- An example concerning parts and Newtonian capacity. **81e:46033**
- Warner, C. Robert (with Whitley, Robert) Ideals of finite codimension in $C[0, 1]$ and $L^1(R)$. **81h:46070**
- Watanabe, Yasso Derivations on continuous functions. **81g:46080**
- Whitley, Robert See Warner, C. Robert, **81h:46070**
- Wood, James Unbounded multipliers on commutative Banach algebras. **81f:46063**

secondary classifications:

- Behrends, Elhard ★ M -structure and the Banach-Stone theorem. **(81h:46002)**
- Butzmann, Heinz-Peter Der Satz von Stone-Weierstrass in $\mathbb{C}(X)$ und seine Anwendungen auf die Darstellungstheorie von Limesalgebren. **(81i:54012)**
- Dubuc, Eduardo J. (with Porta, Horacio) Uniform spaces, Spanier quasitopologies, and a duality for locally convex algebras. **(81d:46069)**
- Gelbaum, Bernard R. (with Schanuel, Stephen Hoel) A characterization of the semigroup of matrix units. **(81f:20082)**
- Gikver, V. M. Invariant algebras of functions on Lie groups. (Russian) **(81a:43005a)**
- Hashimoto, Naoki Remarks on the Stone-Weierstrass theorem. **(81e:46024)**
- Klotter, A. K. Spectral properties of automorphisms with weight in uniform algebras. (Russian. English summary) **(81h:47003)**
- Pigno, Louis (with Smith, Brent) A remark on the F. and M. Riesz theorem. **(81f:43006)**
- Pliser, Gilles A remarkable homogeneous Banach algebra. **(81k:43009)**
- Porta, Horacio See Dubuc, Eduardo J., **(81d:46069)**
- Prkry, Karel (with Richards, Ian) Uniform approximation in the semiring of positive continuous functions. **(81m:41043)**
- Richards, Ian See Prkry, Karel, **(81m:41043)**
- Rogozin, B. A. (with Sgibnev, M. S.) Banach algebras of absolutely continuous measures on the real line. (Russian) **(81a:43008)**
- Sakai, Akira Uniform approximation in several complex variables. **(81e:32019)**
- Schanuel, Stephen Hoel See Gelbaum, Bernard R., **(81f:20082)**
- Sgibnev, M. S. See Rogozin, B. A., **(81a:43008)**
- Smith, Brent See Pigno, Louis, **(81f:43006)**
- Szymanski, Wacław Antisymmetric operator algebras. I, II. **(81k:46065)**
- Wells, Benjamin B., Jr. Algebras of Fourier transforms with closed restrictions. **(81g:43007)**
- *Verner, John Capacity and uniform algebras. **(81f:31018)**

46J15 Banach algebras of differentiable or analytic functions, H^p -spaces
[See also 30H05, 32A35, 32E25, 42B30.]

- Apresjan, S. A. All closed ideals of the algebra $A_p(\mathbb{G})$ are divisorial. (Russian. English summary) **81h:46071**
- Carrasco, Luis Salinas A maximality theorem in the abstract theory of Hardy algebras. (Spanish. English summary) **81g:46070**
- Cufí, Julián Restrictions of the algebras H_p^∞ . (Spanish) **81h:46063**
- Esterle, Jean A very discontinuous homomorphism from $\mathcal{B}(D)(*)$. **81g:46071**
- Frankfurt, Richard Weak* generators of quotient algebras of H^∞ . **81h:46072**
- Hakim, Monique (with Sibony, Nessim) Spectre de $A(\bar{U})$ pour des domaines bornés faiblement pseudoconvexes réguliers. (English summary) **81g:46072**
- Haman, L. G. Geometric classification of ideals in algebras of differentiable functions. (Russian) **81h:46059**
- Isidro, J. M. Characterization of the spectrum of some topological algebras of holomorphic functions. **81m:46075**
- Kabaila, V. Imbedding of the Hardy classes into the space $L^p(\mu)$. (Russian. Lithuanian and English summaries) **81c:46045**
- Kennel, C. W. (with Rubel, Lee A.) Exterior functions and strictly continuous homomorphisms in the algebra of bounded analytic functions. **81f:46064**
- Krasčkov-Ternovskii, I. F. Local description of closed ideals and submodules of analytic functions of a single variable. II. (Russian) **81g:46073**
- Laursen, K. B. Prime ideals and automatic continuity in algebras of differentiable functions. **81h:46056**
- Laeckig, Daniel H. The compact Hankel operators form an M -ideal in the space of Hankel operators. **81h:46057**
- Mayer, Jacques Isometries in spaces of analytic functions with bounded derivative. (Russian) **81d:46061**
- Mehta, R. D. (with Vasavada, M. H.) Wada's type result for a Banach function algebra. **81h:46073**
- Nakazi, Takahiko A note on weak*-Dirichlet algebra. (Russian summary) **81k:46060**
- Nishizawa, Kiyoko On closed subalgebras between A and H^∞ . **81m:46076**
- Oberlin, Daniel M. A Rudin-Carleson theorem for uniformly convergent Taylor series. **81j:46082**
- O'Farrell, Anthony G. Real parts of analytic functions. **81c:46046**

- Paramonov, P. V. (with Ščerbina, N. V.) Examples of nonanalytic uniform algebras. (Russian. English summary) **81j:46083**
- Rosenblum, Marvin A corona theorem for countably many functions. **81e:46034**
- Rubel, Lee A. See Kennel, C. W., **81f:46064**
- Šamofan, F. A. Imbedding theorems and characterization of traces in the spaces $H^p(U^n)$, $0 < p < \infty$. (Russian) **81j:46084**
- Ščerbina, N. V. See Paramonov, P. V., **81j:46083**
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- Tischer, Jürgen A note on the Radon-Nikodým theorem of Pedersen and Takesaki. **81h:46084**
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- Ajupov, Š. A. See Sarymsakov, T. A., **(81a:17010)**
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- Bellissard, Jean (with Iochum, Bruno) Spectral theory for facially homogeneous symmetric self-dual cones. **(81f:47037)**
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- Sarymsakov, T. A. (with Ajupov, Š. A.) Partially ordered Jordan algebras. (Russian) **(81a:17010)**
- Tsai, Sze Kai (with Wright, Steve) The splitting of operator algebras. **(81g:46082)**
- Wright, J. D. Maitland On some problems of Kaplansky in the theory of rings of operators. **(81j:46097)**
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- Araki, Huzihiro (with Kishimoto, Akitaka) On clustering property. **81i:46084**
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- Perturbations of ground states of type I C^* -algebras. **81e:46055**

- Bunce, John W. Approximating maps and a Stone-Weierstrass theorem for C^* -algebras. **81h:46082**
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- Anderson, Joel Pathology in the Calkin algebra. **(81g:47045)**
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- Takenouchi, Osamu A non- W^* , AW^* -factor. **81e:46052**

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- Chu, Cho Ho (with Wright, J. D. Maitland) A theory of types for convex sets and ordered Banach spaces. **(81j:46016)**
- Fack, Thierry (with Maréchal, O.) Application de la K -théorie algébrique aux C^* -algèbres. **(81h:46093)**
- Funakoshi, Shunsuke On representations of non-type I groups. **(81h:22006)**
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- Upmeyer, Harald Erratum: "Derivation algebras of JB-algebras" [Manuscripta Math. 30 (1979), no. 2, 199-214; MR 81f:17014]. **(81j:17016)**
- Wright, J. D. Maitland See Chu, Cho Ho, **(81j:46016)**

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- Enomoto, Masatoshi (with Takehana, Hiroaki; Watatani, Yasuo) Automorphisms on Cuntz algebras. **81h:46086**
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- Connes, Alain On the spatial theory of von Neumann algebras. **(81g:46083)**
- Enock, Michel (with Schwartz, Jean-Marie) Produit croisé d'une algèbre de von Neumann par une algèbre de Kac. II. **(81m:46084)**
- Hagerup, Uffe On the dual weights for crossed products of von Neumann algebras. I. Removing separability conditions. **(81e:46048)**
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- Jones, Vaughan F. R. Actions of finite groups on the hyperfinite type Π_1 factor. **(81m:46094)**
- Jørgensen, Palle E. T. Commutators of Hamiltonian operators and nonabelian algebras. **(81a:47046)**

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- Pedersen, Gert Kjaergård (with Takai, Hiroshi) Crossed products of C^* -algebras by approximately uniformly continuous actions. 81g:46098
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- Araki, Huzihiro. On KMS states of a C^* dynamical system. (81h:82001)
 Some topics in quantum statistical mechanics. (81c:82006)
 Debs, Gabriel. Sélection d'une multi-application à valeurs θ_β . (81e:54018)
 Leeb, Richard L. (with Muhly, Paul S.) Analyticity and flows in von Neumann algebras. (81h:46080)
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 Paschke, William L. The crossed product of a C^* -algebra by an endomorphism. (81m:46081)
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 Araki, Huzihiro (with Kishimoto, Akitaka) On clustering property. (81h:46084)
 Battle, Guy A. Inadequacy of the Heisenberg picture for a pathological continuous, infinite system and global existence of solutions for the resulting nonlinear Schrödinger equation. (French summary) (81k:82010)
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 Bratteli, Ola. On the possible temperatures of a C^* -dynamical system. (81h:82013)
 (with Kishimoto, Akitaka) Generation of semigroups, and two-dimensional quantum lattice systems. (81m:47055)
 Daubechies, Ingrid. See Aerts, Dirk, (81e:81019)
 Frigerio, Alberto (with Gorini, Vittorio; Pulé, Joe V.) Open quasifree systems. (81j:82016)
 Gorini, Vittorio. See Frigerio, Alberto; et al., (81j:82016)
 Kastler, D. Fondements de la mécanique statistique. (English. French summary) (81f:82006)
 Kishimoto, Akitaka. See Araki, Huzihiro, (81h:46084) and Bratteli, Ola, (81m:47055)
 Lindblad, Göran. Non-Markovian quantum stochastic processes and their entropy. (81j:82011)
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 Rigotti, Carlo. On the essential duality condition for Hermitian scalar field. (French summary) (81c:81030)
 Roos, H. KMS condition in a Schrödinger picture of the dynamics. (81a:81044)
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Choda, Marie (with Watatani, Yasuo) Conditions for inner amenability of groups. (81a:43001)

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Fritzsche, M. Über Ideale in LMC^* -Algebren. (81a:46067)

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46Mxx Categorical methods [See also 18-XX.]

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Alpay, Şafak On the projective tensor product of compact convex sets with the strong equal support property. (Turkish summary) (81k:46006)

Aplola, Heikki On tensor products of locally convex \mathfrak{H} -spaces with applications to λ -nuclearity. (81i:46003)

Baker, J. M. Operator representation of weakly Cauchy sequences in projective tensor products of Banach spaces. (81g:46009)

Curse, T. K. Not all H^* -algebras are operator algebras. (81m:46063)

(Cuntz, Joachim) See Pimsner, Mihai V., et al., (81j:46094)

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Frolov, I. S. Morphisms of algebras that preserve the spectrum. (Russian) (81j:46074)

Helemskiĭ, A. Ja. (with Šeĭnberg, M. V.) Amenable Banach algebras. (Russian) (81g:46061)

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Ito, Yoshifumi On the theory of vector-valued hyperfunctions. (81c:46037)

Johnson, David L. (with Lahr, Charles D.) Multipliers of tensor products of CMA's and Radon-Nikodým derivatives. (81j:43010)

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Mallios, Anastasios On a convenient category of topological algebras. I. (Greek summary) (81d:46058a)

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Pimsner, Mihai V. (with Popa, Sorin T.) The Ext-groups of some C^* -algebras considered by J. Cuntz. (81j:46094)

Popa, Nicolae Die Permanenzeigenschaften der Tensorprodukte von Banachverbänden. (81b:46032)

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Šeĭnberg, M. V. See Helemskiĭ, A. Ja., (81g:46061)

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Tomiyama, Jun Some aspects of the commutation theorem for tensor products of operator algebras. (French summary) (81e:46045)

Inner derivations in the tensor products of operator algebras. (81m:46082)

Tzafriri, Lior See Lindenstrauss, Joram, (81c:46001)

Us, G. F. Functions of operators that act with respect to different variables. (Russian) (81m:47026)

Wong, Yau Chuen ★Schwartz spaces, nuclear spaces and tensor products. (81b:46005)

46M10 Projective and injective objects

Banaschewski, Bernhard Injective Banach sheaves. 81j:46109

Graven, A. W. M. Injective and projective Banach modules. 81e:46063

Lykova, Z. A. On conditions for projectivity of Banach algebras of completely continuous operators. (Russian. English summary) 81m:46098

secondary classifications:

Habre, William Partition continue de l'unité et C -repletion. (English summary) (81c:46018)

Selivanov, Ju. V. Biprojective Banach algebras. (Russian) (81h:46050)

46M15 Functors

Fack, Thierry (with Maréchal, O.) Application de la K -théorie algébrique aux C^* -algèbres. 81i:46093

Grossman, Marvin W. Function spaces and fixed point properties: a Galois connection. 81j:46110

Loewer, Viktor Dualität von Funktoren und Operatorenideale. 81m:46099

Maréchal, O. See Fack, Thierry, 81i:46093

Pelletier, Joann Wick KAN extensions of the HOM functor in the category of Banach spaces. (French summary) 81h:46094

secondary classifications:

Buhvalov, A. V. The conjugates of spaces of analytic vector-valued functions and the duality of functors generated by these spaces. (Russian. English summary) (81b:46052)

Hudalov, V. T. The tensor product of an ordered Banach space and an arbitrary Banach space. (Russian. English summary) (81e:46060)

Kasparov, G. G. The K -functors in the theory of extensions of C^* -algebras. (Russian) (81i:46072)

Lorenz, Klaus Jürgen Reflexive Objekte in einer Funktorkategorie mit Dualität. (81j:18007)

46M20 Methods of algebraic topology (cohomology, sheaf and bundle theory, etc.) [See also 14F05, 18Fxx, 55Rxx.]

Burden, Charles W. (with Mulvey, Christopher J.) Banach spaces in categories of sheaves. 81h:46095

The Hahn-Banach theorem in a category of sheaves. 81h:46096

Douglas, Ronald G. Extensions of C^* -algebras and algebraic topology. 81i:46094

Effros, Edward G. Aspects of noncommutative geometry. 81m:46100

Hofmann, Karl Heinrich (with Keimel, Klaus) Sheaf-theoretical concepts in analysis: bundles and sheaves of Banach spaces, Banach $C(X)$ -modules. 81f:46085

Karoubi, Max K -théorie algébrique de certaines algèbres d'opérateurs. 81i:46095

Keimel, Klaus. See Hofmann, Karl Heinrich, 81f:46085

Loupas, Gay Cohomology over Banach crossed products. Application to bounded derivations and crossed homomorphisms. 81i:46064

Mulvey, Christopher J. Banach sheaves. 81h:46097

See also Burden, Charles W., 81h:46095

Pelletier, Joann Wick (with Rosebrugh, Robert D.) The category of Banach spaces in sheaves. 81c:46055

Rosebrugh, Robert D. See Pelletier, Joann Wick, 81c:46055

Schochet, Claude Homogeneous extensions of C^* -algebras and K -theory. I. 81i:46096

secondary classifications:

Banaschewski, Bernhard Injective Banach sheaves. (81j:46109)

Berg, I. David Index theory for perturbations of direct sums of normal operators and weighted shifts. (81a:47029)

Breuer, Manfred A homotopy-theoretic proof of the additivity of the trace. (81i:46079)

(Cuntz, Joachim) See Pimsner, Mihai V., et al., (81j:46094)

Day, Brian J. On topological modules and duality. (81d:18006)

Fomenko, A. T. See Miščenko, A. S., (81j:46075)

(Gęba, Kazimierz) See Granas, Andrzej, (81i:55002)

Gierz, Gerhard Representation of spaces of compact operators and applications to the approximation property. (81f:46028)

Granas, Andrzej ★Points fixes pour les applications compactes: espaces de Lefschetz et la théorie de l'indice. (French) [Fixed points for compact applications: Lefschetz spaces and index theory] (81i:55002)

Jones, Vaughan F. R. An invariant for group actions. (81j:46100)

Kasparov, G. G. The operator K -functor and extensions of C^* -algebras. (Russian) (81m:58075)

Miščenko, A. S. (with Fomenko, A. T.) The index of elliptic operators over C^* -algebras. (Russian) (81i:46075)

Paschke, William L. (with Salinas, Norberto) Matrix algebras over O_2 . (81a:46075)

Pimsner, Mihai V. (with Popa, Sorin T.) The Ext-groups of some C^* -algebras considered by J. Cuntz. (81j:46094)

Popa, Sorin T. (with Rieffel, Marc A.) The Ext groups of the C^* -algebras associated with irrational rotations. (81j:46106)

See also Pimsner, Mihai V., (81j:46094)

Rieffel, Marc A. See Popa, Sorin T., (81j:46106)

Salinas, Norberto. See Paschke, William L., (81a:46075)

Sutherland, Colin E. Cohomology and extensions of von Neumann algebras. I, II. (81k:46067)

Wright, Steve Banach-module valued derivations on C^* -algebras. (81g:46062)

46M35 Abstract interpolation of topological vector spaces

Beauzamy, Bernard Quelques propriétés topologiques des espaces d'interpolation dans le cadre général. (English summary) 81h:46041

Bereznoi, E. I. Two imbedding theorems for interpolation functors. (Russian) 81g:46102

Bisz, St. (with Gaspar, D.) On the abstract interpolation method. 81c:46056

Brudnyi, Ju. A. (with Krugljak, N. Ja.) A family of approximation spaces. (Russian) 81m:46101

Colman, Ronald R. (with Cwikel, M.; Rochberg, R.; Sagher, Yoram; Weiss, Guido)

- Complex interpolation for families of Banach spaces. **81a:46082**
(with Rochberg, R.; Weiss, Guido; Cwikel, M.; Sagher, Yoram) The complex method for interpolation of operators acting on families of Banach spaces. **81k:46075**
- Cwikel, M. See Colfman, Ronald R.; et al., **81a:46082** and Colfman, Ronald R.; et al., **81k:46075**
- Dmitriev, V. I. (with Ovcinnikov, V. I.) Interpolation in spaces of the real method. (Russian) **81g:46103**
- Dubinskii, Ju. A. Limits of monotone sequences of Banach spaces. Applications. (Russian) **81m:46102**
- Gaggar, D. See Bist, St., **81c:46056**
- Gulashvili, A. B. An individual interpolation theorem. (Russian. Georgian and English summaries) **81j:46111**
- Krein, S. G. (with Petunin, Ju. I.; Semenov, E. M.) ★Интерполяция линейных операторов. (Russian) [Interpolation of linear operators] **81f:46086**
(with Nikolova, L. I.) Holomorphic functions in a family of Banach spaces, interpolation. (Russian) **81j:46112**
- Kruglak, N. Ja. See Brudnyi, Ju. A., **81m:46101**
- Lana Fernandez, Dicesor Interpolation of 2° Banach spaces. **81c:46065**
- Levy, Mireille L'espace d'interpolation réel $(A_0, A_1)_{\theta, p}$ contient P . (English summary) **81b:46083**
- Nikolova, L. I. See Krein, S. G., **81j:46112**
- Ovcinnikov, V. I. Description of interpolation orbits. (Russian) **81g:46104**
See also Dmitriev, V. I., **81g:46103**
- Petunin, Ju. I. See Krein, S. G.; et al., **81f:46086**
- Pliser, Gilles La méthode d'interpolation complexe: applications aux treillis de Banach. **81d:46068**
- Pustylnik, E. I. Some inequalities in the theory of selfadjoint operators. (Russian) **81b:46084**
- Rochberg, R. See Colfman, Ronald R.; et al., **81a:46082** and Colfman, Ronald R.; et al., **81k:46075**
- Sagher, Yoram See Colfman, Ronald R.; et al., **81a:46082** and Colfman, Ronald R.; et al., **81k:46075**
- Semenov, E. M. See Krein, S. G.; et al., **81f:46086**
- Weiss, Guido See Colfman, Ronald R.; et al., **81a:46082** and Colfman, Ronald R.; et al., **81k:46075**
- Williams, Vernon On a theorem of M. A. Krasnoselski. **81g:46105**
- Zobina, V. G. Interpolation in spaces with given symmetries and uniqueness of sufficient collections. (Russian. Georgian and English summaries) **81b:46085**
Duality in interpolation of operators. (Russian. Georgian and English summaries) **81j:46113**

secondary classifications:

- Arazy, Jonathan Some remarks on interpolation theorems and the boundness of the triangular projection in unitary matrix spaces. (81k:47056a)
Addendum: "Some remarks on interpolation theorems and the boundness of the triangular projection in unitary matrix spaces". (81k:47056b)
- Blizinski, A. P. Multivariate rearrangements and Banach function spaces with mixed norms. (81k:46023)
- DeVore, Ronald A. (with Scherer, Karl) Interpolation of linear operators on Sobolev spaces. (81a:46036)
- Freitag, Dietrich Real interpolation of weighted L_p -spaces. (81b:46043)
- Gentry, Roosevelt Banach algebra interpolation theory. (81d:46062)
- Goldstein, Jerome A. An operator semigroup version of the Edmunds-Moscattelli example. (81f:47041)
- Hudzik, Henryk (with Musielak, Julian; Urbanski, R.) Interpolation of compact sublinear operators in generalized Orlicz spaces of nonsymmetric type. (81k:46040)
- Lapin, S. V. Topological inclusions of symmetric spaces. (Russian. English summary) (81d:46026)
- Lotanovskii, G. Ja. The complex method of interpolation in Banach lattices of measurable functions. (Russian) (81k:46025)
- Mallgranda, Lech Interpolation of Lipschitz operators for the pairs of spaces (L^1, L^∞) and (l^1, c_0) . (81j:46040)
- Millman, Mario Interpolation of operators of mixed weak-strong type between rearrangement invariant spaces. (81b:46039)
- Mitttel, A. A. (with Russu, G. I.) Symmetrically normed ideals weakly intermediate between γ_1 and some γ_p . (Russian) (81k:47057)
- Musielak, Julian See Hudzik, Henryk; et al., (81k:46040)
- Pálviri, László On the spaces $L_p^s(l_q)$: maximal inequalities and complex interpolation. (81j:46056)
- Petunin, Ju. I. (with Pičko, A. M.) ★Теория характеристик подпространств и ее приложения. (Russian) [The theory of the characteristics of subspaces and its applications] (81m:46025)
- Pičko, A. M. See Petunin, Ju. I., (81m:46025)
- Russu, G. I. See Mitttel, A. A., (81k:47057)
- Scherer, Karl See DeVore, Ronald A., (81a:46036)
- Urbanski, R. See Hudzik, Henryk; et al., (81k:46040)
- Zaritsov, V. V. Duality in families of l.c.s.-subspaces. (Russian) (81b:46036)

46M40 Inductive and projective limits [See also 46A12.]

- Floret, Klaus On bounded sets in inductive limits of normed spaces. **81k:46076**

secondary classifications:

- Gejter, W. On extending and lifting continuous linear mappings in topological vector spaces. (81j:46011)
- Hollstein, Ralf Inductive limits and ϵ -tensor products. (81m:46008)
- Pelletier, Jean Wick KAN extensions of the HOM functor in the category of Banach spaces. (French summary) (81k:46094)
- Samoilenko, Ju. S. Locally dependent representations of families of normal operators.

- (Russian) (81k:47014)
- Zaritsov, V. V. Compact families of locally convex spaces and FS and DFS spaces. (Russian) (81k:46011)

46M99 None of the above, but in this section

- Botnaru, D. V. A bicategory structure on the category of Hausdorff locally convex spaces. (Russian) **81i:46097**
- Dubuc, Eduardo J. (with Porta, Horacio) Uniform spaces, Spanier quasitopologies, and a duality for locally convex algebras. **81d:46069**
- Hudaiberdiev, V. N. See Olinov, H., **81f:46087**
- Olinov, H. (with Hudaiberdiev, V. N.) The Banach-Steinhaus theorem and duality in subcategories of a category of topological modules over topological rings. (Russian) **81f:46087**
- Porta, Horacio See Dubuc, Eduardo J., **81d:46069**

secondary classifications:

- Colella, P. (with Cordes, H. O.) The C^* -algebra of the elliptic boundary problem. (81m:35144)
- Cordes, H. O. See Colella, P., (81m:35144)
- Dauks, John Enveloping W^* -algebras. (81a:46077)
- Ovcarenko, I. E. The expansion of Hermitian forms and operators. The problem of obtaining special integral representations of positive definite functions. III. (Russian) (81m:47041)
- Soldator, A. P. On the Noether theory of operators. Wiener imbeddings of B-algebras. (Russian) (81c:46042)
- Takahashi, Akomso Hilbert modules and their representation. (81k:46056a)
- A duality between Hilbert modules and fields of Hilbert spaces. (81k:46056b)
- Thayer F., F. Javier Lifting positive elements. (81a:46016)

46N05 Miscellaneous applications of functional analysis

- Aubin, Jean-Pierre ★Applied functional analysis. **81a:46083**
- Botja, F. V. (with Prigorik, V. A.) Basis mappings in a space with two norms. (Russian) **81k:46098**
- (Cornet, Bernard) See Aubin, Jean-Pierre, **81a:46083**
- (Labrousse, Carole) See Aubin, Jean-Pierre, **81a:46083**
- (Lasry, Jean-Michel) See Aubin, Jean-Pierre, **81a:46083**
- Marek, Ivo Homogenization in problems with oscillating data. **81k:46077**
- Marias, Michel Transformations canoniques linéaires dans les espaces de Hilbert. (English summary) **81c:46057**
- Prigorik, V. A. See Botja, F. V., **81k:46098**

secondary classifications:

- Aerts, Dirk (with Daubechies, Ingrid) Physical justification for using the tensor product to describe two quantum systems as one joint system. (81e:81008)
(with Daubechies, Ingrid) About the structure-preserving maps of a quantum mechanical propositional system. (81k:81010)
- Aubin, Jean-Pierre ★Applied abstract analysis. (81e:54001)
- Aizlov, T. Ja. (with Iohvidov, I. S.) Linear operators in spaces with an indefinite metric and their applications. (Russian) (81m:47052)
- Bachman, G. (with Sultan, A.) Applications of functional analysis to topological measure theory. (81k:28016)
- Bogoljubov, N. N., Jr. Generalized theorems in model system theory. (81a:82010)
- Bricmont, Jean (with Fontaine, J. R.; Landau, Lev D.) Absence of symmetry breakdown and uniqueness of the vacuum for multicomponent field theories. (81c:81036)
- (Cornet, Bernard) See Aubin, Jean-Pierre, (81e:54001)
- Daubechies, Ingrid See Aerts, Dirk, (81e:81008) and Aerts, Dirk, (81h:81010)
- Ernst, V. See Gessner, W., (81b:81037)
- Fontaine, J. R. See Bricmont, Jean; et al., (81c:81036)
- Gessner, W. (with Ernst, V.) The rosette of rosettes of Hilbert spaces in the indefinite metric state space of the quantized Maxwell field. (81b:81037)
- Greensite, J. P. Calculation of the Yang-Mills vacuum wave functional. (81b:81018)
- Hall, Japheth, Jr. The independence of certain axioms of structures in sets. (81e:00004)
- Hoskins, Roland Frank ★Generalised functions. (81d:46039)
- Hutson, V. C. L. (with Pym, J. S.) ★Applications of functional analysis and operator theory. (81k:46001)
- Iohvidov, I. S. See Aizlov, T. Ja., (81m:47052)
- Juszcak, L. Representations of the current algebra in a model of quantum field theory. (81j:81031)
- (Labrousse, Carole) See Aubin, Jean-Pierre, (81e:54001)
- Landau, Lev D. See Bricmont, Jean; et al., (81c:81036)
- Misanevskii, P. A. (with Ramm, A. G.) Uniqueness theorem for abstract hyperbolic equations with application to the uniqueness of the harmonic coordinate system in general relativity. (81h:34068)
- Moreau, Jean-Jacques Application of convex analysis to some problems of dry friction. (81c:73091)
- (Moulin, Hervé) See Aubin, Jean-Pierre, (81e:54001)
- Petunin, Ju. I. (with Pičko, A. M.) ★Теория характеристик подпространств и ее приложения. (Russian) [The theory of the characteristics of subspaces and its applications] (81m:46025)
- Pičko, A. M. See Petunin, Ju. I., (81m:46025)
- Pym, J. S. See Hutson, V. C. L., (81k:46001)
- Ramm, A. G. See Misanevskii, P. A., (81h:34068)
- Sarason, V. A. Reconstruction of Lambert's optical curve from two of its images. (Russian) (81b:86006)
- Sijmaruk, V. E. Bounded solutions of linear functional equations with linear

transformations of the argument. (Russian) (81i:45027)

Sultan, A. See Bachman, G. (81i:29016)

Wong, Arthur ★A course of applied functional analysis. (81a:46003)

46P05 Functional analysis over fields other than \mathbb{R} or \mathbb{C} ; non-Archimedean functional analysis [See also 12J25, 32E27.]

Carneiro, José Paulo Q. Non-Archimedean weighted approximation. 81d:46070

Quintero Ruiz, Bienvenido A characterization of the compatible topologies in a vector space over a valued field in terms of families of functions homogeneous in absolute value. (Spanish) 81m:46103

Elizalde, Jesús Bastero Convexity and boundedness in topological vector spaces over quasivalued fields. (Spanish. English summary) 81b:46078

Excusant, Alain The ultrametric spectral theory. 81i:46098

Jain, D. R. See Saxena, R. K.; et al., 81m:46104

Jain, Pawan K. See Saxena, R. K.; et al., 81m:46104

Ohlens, E. U. Some separable non-Archimedean topological vector spaces. 81b:46099

van Rooij, A. C. M. ★Non-Archimedean functional analysis. 81a:46084

Saxena, R. K. (with Jain, D. R.; Jain, Pawan K.) On certain classes of entire functions over non-Archimedean fields. 81m:46104

Schikhof, W. H. ★Non-Archimedean calculus. 81b:46087

Non-Archimedean differentiation. 81b:46086

secondary classifications:

Černov, V. G. π -homogeneous spherically symmetric generalized functions on K^n . (Russian) (81g:46053)

Vilk, M. M. A non-Archimedean analogue of perturbation theory. (Russian) (81d:12015)

47-XX OPERATOR THEORY

(Sveitka, I. V.) See Linear operators, 81i:47001

Linear operators ★Линейные операторы. (Russian) [Linear operators] 81i:47001

47-01 Elementary exposition, textbooks

Brethner, Siegfried ★Hilbert-Räume und Spektralmasse. (German) [Hilbert spaces and spectral measures] 81c:47001

(Stics, Joseph) See Weidmann, Joachim, 81c:47001

Weidmann, Joachim ★Linear operators in Hilbert spaces. 81c:47001

secondary classifications:

Grillani, A. D. See Kirillov, A. A., (81i:46002)

Kirillov, A. A. (with Gvisiani, A. D.) ★Теоремы и задачи функционального анализа. (Russian) [Theorems and problems of functional analysis] (81i:46002)

Lay, David C. See Taylor, Angus Ellis, (81b:46001)

Schwartz, Laurent ★Analyse hilbertienne. (French) [Hilbertian analysis] (81a:46001)

Taylor, Angus Ellis (with Lay, David C.) ★Introduction to functional analysis. (81b:46001)

47-02 Advanced exposition (research surveys, monographs, etc.)

Bart, Harm (with Gohberg, Israel; Kaashoek, Marinus A.) ★Minimal factorization of matrix and operator functions. 81a:47001

Clancey, Kevin ★Seminormal operators. 81c:47002

Gohberg, Israel See Bart, Harm; et al., 81a:47001

Halmos, P. R. Ten years in Hilbert space. 81c:47003

Kaashoek, Marinus A. See Bart, Harm; et al., 81a:47001

Pletch, Albrecht ★Operator ideals. 81a:47002

★Operator ideals. 81j:47001

Yadav, B. S. Recent developments in Hilbert space operator theory. 81b:47001

secondary classifications:

Azirov, T. Ja. (with Iohvidov, I. S.) Linear operators in spaces with an indefinite metric and their applications. (Russian) (81m:47052)

Bonsall, F. F. (with Duncan, J.) Numerical ranges. (81m:47011)

Duncan, J. See Bonsall, F. F., (81m:47011)

Fučík, Svatopluk (with Kufner, Alois) ★Nonlinear differential equations. (81e:35001)

Iohvidov, I. S. See Azirov, T. Ja., (81m:47052)

Kufner, Alois See Fučík, Svatopluk, (81e:35001)

47-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Halmos, P. R. Ten years in Hilbert space. (81c:47003)

47-04 Explicit machine computation and programs (not the theory of computation or programming)

47-06 Proceedings, conferences, etc.

(Berezanskiĭ, Ju. M.) See Operators of mathematical physics and infinite-dimensional analysis, 81b:47002

(Erdélyi, Ivan) See Operator theory and functional analysis, 81c:47003

(Kangro, G.) See Proceedings: Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators, 81m:47001

(Ström, A. V.) See Functional analysis, 81c:47002 and Functional analysis, 81j:47002

Algebra ★Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] 81m:47001

Anniversary:

Birth of Gunnar Kangro ★Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] 81m:47001

Conference:

Methods of Algebra and Functional Analysis in the Study of Families of Operators ★Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] 81m:47001

Functional analysis ★Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] 81m:47001

★Функциональный анализ. Вып. 13. (Russian) [Functional analysis. No. 13]

81c:47002

★Operator theory and functional analysis. 81c:47003

★Функциональный анализ. Вып. 14. (Russian) [Functional analysis. No. 14] 81j:47002

Infinite-dimensional analysis ★Операторы математической физики и бесконечномерный анализ. (Russian) [Operators of mathematical physics and infinite-dimensional analysis] 81b:47002

Meeting:

Operator Theory and Functional Analysis ★Operator theory and functional analysis. 81c:47003

Operator theory ★Функциональный анализ. Вып. 13. (Russian) [Functional analysis. No. 13] 81c:47002

Operator theory and functional analysis ★Operator theory and functional analysis. 81c:47003

Operators of mathematical physics and infinite-dimensional analysis ★Операторы математической физики и бесконечномерный анализ. (Russian) [Operators of mathematical physics and infinite-dimensional analysis] 81b:47002

Proceedings:

Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators ★Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] 81m:47001

Providence, R.I. ★Operator theory and functional analysis. 81c:47003

Spectral theory ★Функциональный анализ. Вып. 14. (Russian) [Functional analysis. No. 14] 81j:47002

Symposium:

Various Problems Related to Invariant Subspaces ★Various problems related to invariant subspaces. (Japanese) 81m:47002

Tartu ★Материалы Конференции "Методы Алгебры и Функционального Анализа при Исследовании Семейств Операторов". (Russian) [Proceedings of a Conference on the Methods of Algebra and Functional Analysis in the Study of Families of Operators] 81m:47001

Various problems related to invariant subspaces ★Various problems related to invariant subspaces. (Japanese) 81m:47002

secondary classifications:

(Bartle, R. G.) See Studies in functional analysis, (81j:46004)

(Engel'son, E. L.) See Topological spaces and their mappings, (81b:54002)

(Nikol'skii, S. M.) See Spectral theory of functions and operators, (81j:00010)

Functional analysis ★Studies in functional analysis. (81j:46004)

Functions ★Spectral theory of functions and operators. (81j:00010)

Operators ★Spectral theory of functions and operators. (81j:00010)

Spectral theory of functions and operators ★Spectral theory of functions and operators. (81j:00010)

Studies in functional analysis ★Studies in functional analysis. (81j:46004)

Topological spaces and their mappings ★Топологические пространства и их отображения. (Russian) [Topological spaces and their mappings] (81b:54002)

Trudy Mat. inst. Steklov. ★Spectral theory of functions and operators. (81j:00010)

47Axx Single linear operators: general theory

secondary classifications:

Symposium:

Various Problems Related to Invariant Subspaces ★Various problems related to invariant subspaces. (Japanese) (81m:47002)

Various problems related to invariant subspaces ★Various problems related to invariant subspaces. (Japanese) (81m:47002)

47A05 General (adjoints, conjugates, products, inverses, domains, ranges, etc.)

Ageev, A. L. A property of an operator that is inverse to a closed one. (Russian) 81i:47002

Beauzamy, Bernard Une propriété de régularité pour les itérés inverses de certaines

- contractions de classe C_1 . (English summary) **81c:47004**
- Brown, R. C. Notes on generalized boundary value problems in Banach spaces. I. Adjoint and extension theory. **81b:47003**
- Brüning, Jochen (with Kim, Ki Hang; Roush, Fred W.) On a conjecture of S. V. Phadke and N. K. Thakare: "Generalized inverses and operator equations" [Linear Algebra Appl. 23 (1979), 191–199; MR 80b:47017]. **81c:47004**
- Caradus, S. R. ★ Generalized inverses and operator theory. **81m:47003**
- Cross, R. W. Corrigendum: "The range of a linear operator" [Math. Colloq. Univ. Cape Town 11 (1977), 135–143; MR 58 #12437]. **81d:47001**
- On the continuous linear image of a Banach space. **81f:47001**
- Unilateral quasiregularizers of closed operators. **81a:47003**
- Dergunova, N. A. Conditions of finite dimensionality of the space of zero-elements of a linear operator. (Russian) **81j:47003**
- Djinniev, S. (with Muhamadiev, E.) Some properties of a pseudoinverse operator. (Russian. Tajiki summary) **81f:47002**
- Fel'dman, I. A. See Markus, A. S. **81j:47004**
- Golightly, George O. A characterization of the range of a bounded linear transformation in Hilbert space. **81c:47005**
- Izumino, Saichi Inequalities on operators with closed range. **81m:47004**
- Kim, Ki Hang See Brüning, Jochen; et al. **81c:47004**
- Ljance, V. E. (with Storož, O. G.) Mutual adjointness conditions for certain closed operators in terms of abstract boundary operators. (Russian. English summary) **81m:47005**
- Markus, A. S. (with Fel'dman, I. A.) The relation between certain properties of an operator matrix and its determinant. (Russian) **81j:47004**
- Meleško, V. I. Properties of pseudo-inverse operators in Banach spaces. (Russian) **81a:47004**
- Menshies, L. D. Linear regularizability of mappings inverse to linear operators. (Russian) **81j:47005**
- Mennicken, R. (with Sagraloff, Boris) On Banach's closed range theorem. **81c:47005**
- Muhamadiev, E. See Djinniev, S. **81f:47002**
- Naidu, S. Venkata Ratnam See Sastry, K. P. R. **81c:47002**
- Neumann, Michael Automatic continuity of linear operators. **81j:47006**
- Nikaido, Gyokai Remarks on the lower bound of a linear operator. **81m:47006**
- (Phadke, S. V.) See Brüning, Jochen; et al. **81c:47004**
- Przeworska-Bokiewicz, Danuta Some remarks on shifts for right invertible operators. **81m:47007**
- Picone's identity for right invertible operators. **81m:47008**
- Right inverses and Volterra operators. **81h:47001**
- Rehder, Wulf On the commutativity of two projections. **81k:47001**
- Roush, Fred W. See Brüning, Jochen; et al. **81c:47004**
- Sagraloff, Boris See Mennicken, R. **81c:47005**
- Sastry, K. P. R. (with Naidu, S. Venkata Ratnam) On generalized adjoints. **81h:47002**
- Storož, O. G. See Ljance, V. E. **81m:47005**
- (Thakare, Nimbakrishna) See Brüning, Jochen; et al. **81c:47004**
- Wadhwa, Bhushan L. On operator ranges. **81m:47009**

secondary classifications:

- Ben-Israel, Adi (with Greville, Thomas N. E.) ★ Generalized inverses: theory and applications. (81h:15005)
- Boltjanskii, V. V. A class of operators in Hilbert space. (Russian) (81h:47032)
- Duggal, B. P. The operator equation $AB + BA^* = A^*B + BA = I$. (81c:47017)
- Everitt, W. N. (with Gierzt, M.) Inequalities and separation for Schrödinger type operators in $L_2(\mathbb{R}^+)$. (81g:35020)
- Gierzt, M. See Everitt, W. N. (81g:35020)
- Greville, Thomas N. E. See Ben-Israel, Adi. (81h:15005)
- Groetsch, C. W. Generalized inverses and generalized splines. (81j:65072)
- Korinovich, V. A. See Tanaša, V. P.; et al. (81g:65074)
- Langford, W. F. The generalized inverse of an unbounded linear operator with unbounded constraints. (81g:65070)
- Meleško, V. I. Statistical estimation on the basis of L_2 -pseudoinverse operators. (Russian) (81l:65045)
- Mennicken, R. (with Sagraloff, Boris) Characterizations of nearly-openness. (81c:46004)
- Nordgren, E. A. (with Radjabalipour, Mehdi; Radjavi, Heydar; Rosenthal, Peter) On invariant operator ranges. (81c:47010)
- Radjabalipour, Mehdi See Nordgren, E. A.; et al. (81c:47010)
- Radjavi, Heydar See Nordgren, E. A.; et al. (81c:47010)
- Rosenthal, Peter See Nordgren, E. A.; et al. (81c:47010)
- Sagraloff, Boris See Mennicken, R. (81c:46004)
- Stampfli, Joseph G. On self-adjoint derivation ranges. (81a:47036)
- Starkman, A. A. See Tanaša, V. P.; et al. (81g:65074)
- Tanaša, V. P. (with Koršunov, V. A.; Starkman, A. A.) The principle of minimal residuals in the solution of ill-posed problems. (Russian) (81g:65074)

47A10 Spectrum, resolvent

- Allrecht, Ernst On joint spectra. **81d:47002**
- Badil, Maurizio (with Croce, Antonio) Regularity in abstract differential equations. **81c:47004**
- Čeremuhin, E. V. A theorem on the residue of a pseudoresolvent. (Russian) **81l:47005**
- Chevrou, Bernard On the spectral picture of an operator. **81k:47002**
- Chō, Muneeo Remarks on joint spectra for two commuting operators. **81d:47003**
- Croce, Antonio See Badil, Maurizio. **81c:47004**
- Danord, Jean Une caractérisation des contractions de classe C_0 . (English summary) **81f:47003**
- Deift, Percy Applications of a commutation formula. **81g:47001**
- Eisen, M. (with Gindler, H.) Some Banach algebra concepts, states of operators and approximate spectra. **81f:47004**
- Fainštein, A. S. The joint essential spectrum of a family of linear operators. (Russian) **81f:47005**

- Garske, Gerhard An inequality concerning the smallest disc that contains the spectrum of an operator. **81c:47006**
- Giffenher, Frank Norm conditions on resolvents of similarities of Hilbert space operators and applications to direct sums and integrals of operators. **81h:47003**
- Gindler, H. See Eisen, M. **81f:47004**
- Kitover, A. K. Spectral properties of automorphisms with weight in uniform algebra. (Russian. English summary) **81h:47003**
- Ljčić, A. E. Oscillations of anisotropic resonators. (Russian) **81k:47003**
- Lin, C. S. Operator radii and the normal approximate spectrum. **81c:47006**
- Nieto, Joseph I. On the peripheral spectrum. **81m:47010**
- Obatal, Kirti K. Spectral mapping theorem for essential spectra. **81j:47007**
- Radziwvskii, G. V. Asymptotic behavior of distributions of characteristic numbers of operator-functions that are analytic in a corner. (Russian) **81h:47007**
- Sleeman, B. D. ★ Multiparameter spectral theory in Hilbert space. **81h:47004**

secondary classifications:

- Acharya, J. D. (with Sheth, I. H.) Essentially (R), essentially (H_1) and essentially spectraloid operators on Hilbert space. (81m:47035)
- Allegretto, Walter Conditions for nondiscreteness of lower spectra. (81g:47053)
- Ballint, Stefan The asymptotic behaviour of the solutions of the equation $dx/dt = Ax$. (81g:34078)
- Chō, Muneeo (with Takaguchi, Makoto) Joint spectra of matrices. (81d:15006)
- Donnelly, Harold On the essential spectrum of a complete Riemannian manifold. (81j:58081)
- Erdélyi, Ivan Spectral resolvents. (81h:47033)
- Fiolkow, Lawrence A. Elements of spectral theory for generalized derivations. (81m:47051)
- Herrero, Domingo A. Operator algebras of finite strict multiplicity. II. (81g:47040)
- Isakov, N. M. The structure of continuous operators in the neighborhood of a fixed point in the critical case. (Russian) (81k:47093)
- Kiričenko, B. I. Spectral properties of integral operators with kernels depending on the difference of arguments in a space of vector-valued functions. (Russian) (81h:45065)
- Lange, Ridgley A purely analytic criterion for a decomposable operator. (81k:47044)
- Lapides, Michel Formules de moyenne et de produit pour les résolvantes imaginaires d'opérateurs auto-adjoints. (English summary) (81j:47016)
- Lee, Sa Ge Remarks on reducing operator-valued spectrum. (81f:47021)
- Macdonis, Jonas On the discreteness of the spectrum of a boundary value problem. (Russian. Lithuanian and English summaries) (81k:34053)
- Mehra, Mohan Lal ★ Zur asymptotischen Verteilung der Eigenwerte des Maxwellischen Randwertproblems. (German) [On the asymptotic distribution of eigenvalues of Maxwell's boundary value problem] (81c:35099)
- Mereusa, I. V. The decomposition into factors of a polynomial operator pencil. (Russian) (81g:47018)
- Müller-Horrig, Volker Zur Spektraltheorie abgeschlossener Operatoren mit nichtleerer Fredholmmenge. (81h:47018)
- Nagy, B. On S -decomposable operators. (81c:47035)
- Essential spectra of spectral operators. (81c:47031)
- Pokrzywa, Andrzej Spectra of compressions of an operator with compact imaginary part. (81h:47028)
- Putnam, C. R. Operators satisfying a G_1 condition. (81c:47042)
- Ravaska, Timo Differential geometry of C^∞ helices in Hilbert space. (81j:58023)
- Schaefer, Helmut H. Interpolation of spectra. (81h:47030)
- Serlin, Alla Lo The spectrum of a composition operator in $C(K)$. (Russian. English summary) (81d:47024)
- Sheth, I. H. See Acharya, J. D. (81m:47035)
- Sine, Robert Spectral interpolation and a theorem of Tulcea. (81k:47015)
- Takaguchi, Makoto See Chō, Muneeo. (81d:15006)
- Wasow, Wolfgang On the spectrum of Hermitian matrix-valued functions. (81g:15010)
- Weidmann, Joachim Monotone continuity of the spectral resolution and the eigenvalues. (81j:47018)
- Williams, L. R. Equality of essential spectra of quasisimilar quasinormal operators. (81c:47026)
- Equality of essential spectra of certain quasisimilar seminormal operators. (81c:47027)

47A12 Numerical range

- Acharya, J. D. On operators associated with operator radii and generalized numerical ranges. **81k:47004**
- Bonsall, F. F. (with Duncan, J.) Numerical ranges. **81m:47011**
- Chō, Muneeo (with Takaguchi, Makoto) Boundary of joint numerical range. **81a:47007**
- See also Takaguchi, Makoto. **81a:47006**; Takaguchi, Makoto. **81c:47006** and Takaguchi, Makoto. **81f:47008**
- Duncan, J. See Bonsall, F. F. **81m:47011**
- Garske, Gerhard The boundary of the numerical range of an operator. **81c:47007**
- Narcowich, Francis J. Analytic properties of the boundary of the numerical range. **81a:47005**
- Okubo, Kazuyoshi On a generalized numerical range. **81b:47004**
- Patel, J. M. Operators having finite spectrum. **81k:47005**
- Putnam, C. R. See Unni, K. R. **81k:47006**
- Rhodius, Adolf Numerische Wertebereiche linearer Operatoren und Einschließungsmengen für die nichttrivialen Eigenwerte von Integraloperatoren mit stochastischen Kernen. **81b:47005**
- Takaguchi, Makoto (with Chō, Muneeo) On joint numerical ranges. **81a:47006**
- (with Chō, Muneeo) Joint numerical range and normal joint dilation. **81c:47006**
- (with Chō, Muneeo) The joint numerical range and the joint essential numerical range. **81f:47008**
- See also Chō, Muneeo. **81a:47007**
- Unni, K. R. (with Putnam, C. R.) On numerical ranges and spectrum of linear operators on s.i.p. spaces. **81k:47006**

secondary classifications:

- Acharys, J. D. Some examples of nonnormal operators. (81c:47025)
(with Sheth, I. H.) Essentially (R) , essentially (H_1) and essentially spectraloid operators on Hilbert space. (81m:47035)
- As-Yeung, Yik Hol (with Poon, Yiu Tung) 3×3 orthostochastic matrices and the convexity of generalized numerical ranges. (81a:15025)
- Fong, Che Kuo On the essential maximal numerical range. (81b:47046)
- Lia, C. S. Operator radii and the normal approximate spectrum. (81i:47006)
- Marcus, Marvin Some combinatorial aspects of numerical range. (81g:15028)
- Mukherjee, R. N. A note on similarity of operators and related results. (81d:47012)
- Pokrzywa, Andrzej Method of orthogonal projections and approximation of the spectrum of a bounded operator. (81m:47022)
- Poon, Yiu Tung See As-Yeung, Yik Hol, (81a:15025)
- Rodriguez Palacios, Angel A Vidav-Palmer theorem for Jordan C^* -algebras and related topics. (81j:46096)
- Shapiro, H. (with Taussky, Olga) Alternative proofs of a theorem of Moys and Marcus on the numerical range of a square matrix. (81f:15034)
- Sheth, I. H. See Acharys, J. D., (81m:47035)
- Stokov, E. L. The Hausdorff set of a matrix. (Russian) (81g:15029)
- Taussky, Olga See Shapiro, H., (81f:15034)
- Thompson, Robert C. The congruence numerical range. (81b:15026)

47A15 Invariant subspaces

- Atzmon, Aharon Operators which are annihilated by analytic functions and invariant subspaces. 81c:47007
- Chatterjee, Supriya See Yadav, B. S., 81m:47015
- Conway, J. B. (with Halmos, P. R.) Finite-dimensional points of continuity of Lat . 81c:47008
- Erdos, John A. Singly generated algebras containing compact operators. 81c:47006
- Foias, Ciprian (with Pănicu, C.; Voiculescu, Dan) Weak limits of almost invariant projections. 81m:47012
- Frankfurt, Richard Convolution operators on Lebesgue spaces of an n -dimensional cube. 81h:47005
- Grabner, Sandy Operator ranges and invariant subspaces. 81b:47006
- Gribov, M. B. (with Nikol'skii, N. K.) Invariant subspaces and rational approximation. (Russian. English summary) 81f:47006
- Hadwin, Donald W. (with Nordgren, E. A.; Radjavi, Heydar; Rosenthal, Peter) An operator not satisfying Lomonosov's hypothesis. 81m:47013
- Halmos, P. R. See Conway, J. B., 81c:47008
- Harrison, K. J. (with Longstaff, W. E.) An invariant subspace lattice of order type $\omega + \omega + 1$. 81g:47002
- Kim, H. W. (with Moore, Robert L.; Percy, Carl) A variation of Lomonosov's theorem. 81b:47007
- Kitano, K. Correction to: "A note on operators with reducing hyperinvariant subspaces" [Math. Rep. Toyama Univ. 1 (1978), 47-53; MR 58 #7132]. 81c:47009
- Kudrjavov, Ju. L. A modification of the concept of a characteristic function of a linear bounded operator. (Russian) 81a:47008
- Lange, Ridgley Strongly analytic subspaces. 81f:47007
- Longstaff, W. E. (with Rosenthal, Peter) On two questions of Halmos concerning subspace lattices. 81a:47009
- See also Harrison, K. J., 81g:47002
- Moore, Robert L. See Kim, H. W.; et al., 81b:47007
- Nikol'skii, N. K. See Gribov, M. B., 81f:47006
- Nordgren, E. A. (with Radjabipour, Mehdi; Radjavi, Heydar; Rosenthal, Peter) On invariant operator ranges. 81c:47010
- See also Hadwin, Donald W.; et al., 81m:47013
- Ong, Sing Cheong Invariant operator ranges of nest algebras. 81f:47008
- Pănicu, C. See Foias, Ciprian; et al., 81m:47012
- Percy, Carl See Kim, H. W.; et al., 81b:47007
- Radjabipour, Mehdi See Nordgren, E. A.; et al., 81c:47010
- Radjavi, Heydar See Nordgren, E. A.; et al., 81c:47010 and Hadwin, Donald W.; et al., 81m:47013
- Rosenthal, Peter See Longstaff, W. E., 81a:47009; Nordgren, E. A.; et al., 81c:47010 and Hadwin, Donald W.; et al., 81m:47013
- Stampfli, Joseph G. Recent developments on the invariant subspace problem. 81m:47014
- An extension of Scott Brown's invariant subspace theorem: K -spectral sets. 81c:47009
- Voiculescu, Dan See Foias, Ciprian; et al., 81m:47012
- Yadav, B. S. (with Chatterjee, Supriya) On a partial solution of the transitive algebra problem. 81m:47015

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- Aleksandrov, A. B. Invariant subspaces of the backward shift operator in the space H^p ($p \in (0, 1)$). (Russian. English summary) (81h:46018)
- Brennan, James E. Invariant subspaces and subnormal operators. (81a:47030)
Point evaluations, invariant subspaces and approximation in the mean by polynomials. (81h:46026)
- Campbell, Stephen L. (with Faulkner, Gary D.; Sine, Robert) Isometries, projections and Wold decompositions. (81k:47041)
- Emre, E. (with Hautus, M. L. J.) A polynomial characterization of $(\mathcal{R}, \mathcal{Q})$ -invariant and reachability subspaces. (81m:93023)
- Faulkner, Gary D. See Campbell, Stephen L.; et al., (81k:47041)
- Hautus, M. L. J. See Emre, E., (81m:93023)
- Herrero, Domingo A. Operator algebras of finite strict multiplicity. II. (81g:47048)
- Hopenwasser, Alan (with Larson, David) The carrier space of a reflexive operator algebra. (81c:47046)
- Jafari, A. A. (with Radjavi, Heydar) Compact operator ranges and reductive algebras. (81a:47044)

- Kim, H. W. (with Percy, Carl) Extensions of normal operators and hyperinvariant subspaces. (81h:47025)
- Lambert, Alan Statistical independence and invariant subspaces for point transformation. (81c:47010)
- Larson, David See Hopenwasser, Alan, (81c:47046)
- Lomonosov, V. I. A construction of an intertwining operator. (Russian) (81k:47032)
- Malyšev, V. A. (with Minlos, R. A.) Invariant subspaces of clustering operators. (81d:82065)
- Minlos, R. A. See Malyšev, V. A., (81d:82065)
- Percy, Carl See Kim, H. W., (81h:47025)
- Peligrad, C. On operators with reductive commutants and commutants of reductive operator algebras. (81c:47043)
- Putnam, C. R. Invariant subspaces of operators having nearly disconnected spectra. (81h:47026)
- Radjavi, Heydar See Jafari, A. A., (81a:47044)
- Rosenthal, Erik J. A Jordan form for certain infinite-dimensional operators. (81a:47018)
- Sine, Robert See Campbell, Stephen L.; et al., (81k:47041)
- Smolikh, S. V. Conoids and linear operators that leave them invariant. (Russian) (81m:47054)
- Voiculescu, Dan A note on quasitriangularity and trace-class self-commutators. (81c:47035)
- Wa, Pei Yuan Hyperinvariant subspaces of C_{11} contractions. II. (81a:47012b)
Hyperinvariant subspaces of C_{11} contractions. (81a:47012a)

47A20 Dilations, extensions, compressions

- Artin'skil, Ju. M. Regular $(*)$ -extensions of quasi-Hermitian operators in rigged Hilbert spaces. (Russian. Armenian and English summaries) 81g:47003
- Koçubei, A. N. Extensions of a positive definite symmetric operator. (Russian. English summary) 81f:47009
- Mlak, Włodzimierz Dilations of Hilbert space operators (general theory). 81j:47008
- Parrott, Stephen On a quotient norm and the Sz-Nagy-Foias lifting theorem. 81h:47006
- Valușescu, Ilie The maximal function of a contraction. 81g:47004
- Vici, Alessandro Dionisi A characterization of dilatation analytic integral kernels. 81b:47008

secondary classifications:

- Blank, Jiri (with Exner, P.; Havlíček, Miloslav) Quantum-mechanical pseudo-Hamiltonians. (81b:81009)
- Exner, P. See Blank, Jiri; et al., (81b:81009)
- Faulkner, Gary D. (with Shonkwiler, R.) Kernel dilation in reproducing kernel Hilbert space and its application to moment problems. (81a:46030)
- Havlíček, Miloslav See Blank, Jiri; et al., (81b:81009)
- Itok, Shigeru A note on dilations in modules over C^* -algebras. (81g:46077)
- McEneaney, Brian W. Characteristic functions and dilations of noncontractions. (81c:47014)
- Shonkwiler, R. See Faulkner, Gary D., (81a:46030)
- Suciu, Ion (with Valușescu, Ilie) A linear filtering problem in complete correlated actions. (81h:60059)
- Uhlenbrock, D. A. Path space ideas and minimal unitary dilations. (81a:81073)
- Valușescu, Ilie See Suciu, Ion, (81h:60059)
- Weron, Aleksander Second-order stochastic processes and the dilation theory in Banach spaces. (81k:60045)

47A25 Spectral sets

secondary classifications:

- Putnam, David C. See Unni, K. R., (81k:47006)
- Unni, K. R. (with Putnam, David C.) On numerical ranges and spectrum of linear operators on s.i.p. spaces. (81k:47006)

47A30 Norms (inequalities, more than one norm, etc.)

- Axler, Sheldon (with Jewell, Nicholas; Shields, Allen L.) The essential norm of an operator and its adjoint. 81h:47007
- Izumino, Saichi Inequalities on operators with index zero. 81g:47005
Inequalities on G_1 -operators. 81b:47009
- Jewell, Nicholas See Axler, Sheldon; et al., 81h:47007
- Shields, Allen L. See Axler, Sheldon; et al., 81h:47007
- Williams, J. P. On a boundedness condition for operators with a singleton spectrum. 81k:47008

secondary classifications:

- Ando, T. See van Hemmen, J. Leo, (81j:47014)
- Baskakov, A. G. Bernstein-type inequalities in abstract harmonic analysis. (Russian) (81h:43006)
- Gentry, Roosevelt A generalization of theorems of Krasnosel'skii and Juberg. (81j:47022)
- Heinig, Hans P. Variations of Hardy's inequality. (81g:26008)
- van Hemmen, J. Leo (with Ando, T.) An inequality for trace ideals. (81j:47014)
- Kwong, Man Kam (with Zettl, H.) Norm inequalities for dissipative operators on inner product spaces. (81d:47025)
- Nieto, Joseph I. On the peripheral spectrum. (81m:47010)
- Parrott, Stephen On a quotient norm and the Sz-Nagy-Foias lifting theorem. (81h:47006)
- Percy, Carl (with Shields, Allen L.) Almost commuting matrices. (81c:15018)
- Sampson, G. More on weak estimates for oscillating kernels. (81h:44004a)

More on weak estimates of oscillating kernels. II. (81h:44004b)

Shields, Allen L. See Pearcy, Carl. (81c:15018)

Zettl, A. See Kwong, Man Kam. (81d:47025)

47A35 Ergodic theory [See also 28Dxx.]

Aaronson, Jonathan (with Lin, Michael; Weiss, Benjamin) Mixing properties of Markov operators and ergodic transformations, and ergodicity of Cartesian products. 81i:47010a

(with Lin, Michael; Weiss, Benjamin) Correction to: "Mixing properties of Markov operators and ergodic transformations, and ergodicity of Cartesian products". 81i:47010b

Akçoglu, Mustafa A. (with Krengel, Ulrich) Two examples of local ergodic divergence. 81i:47009

Denker, Manfred On unitary operators inducing measure-preserving transformations. 81i:47010

Flytzanis, Elias Invariant measures for linear operators. 81d:47004

Hatao, Shing Yen Ergodic projections of continuous and discrete semigroups. 81i:47011

Jones, Lee K. (with Lin, Michael) Unimodular eigenvalues and weak mixing. 81c:47011

Kan, Charn Huen On Fong and Sucheston's mixing property of operators in a Hilbert space. 81a:47010

Kopp, P. E. An abstract version of a result of Fong and Sucheston. 81a:47011

Krengel, Ulrich See Akçoglu, Mustafa A. 81i:47009

Lambert, Alan Ergodic properties of a class of noncontractive operators. 81k:47009

Statistical independence and invariant subspaces for point transformation. 81i:47010

Lin, Michael See Jones, Lee K., 81c:47011; Aaronson, Jonathan; et al., 81i:47010a and Aaronson, Jonathan; et al., 81i:47010b

Millet, Annie Sur le théorème en moyenne d'Akçoglu-Sucheston. 81h:47007

Olsen, James H. Akçoglu's ergodic theorem for uniform sequences. 81k:47010

The individual ergodic theorem for contractions with fixed points. 81g:47006

Satô, Ryôtarô On abstract mean ergodic theorems. II. 81c:47012

Ratio limit theorems and applications to ergodic theory. 81k:47011

Two local ergodic theorems on L_∞ . 81c:47011

On the Blum-Hanson theorem in L_p . 81c:47012

Invariant measures and ergodic theorems for positive operators on $C(X)$ with X quasi-Stonian. 81i:47012

Weiss, Benjamin See Aaronson, Jonathan; et al., 81i:47010a and Aaronson, Jonathan; et al., 81i:47010b

Yendou, F. J. Ito's theorem and the ratio theorem. 81c:47013

Yoshimoto, T. Vector valued ergodic theorems for operators satisfying norm conditions. 81m:47016

secondary classifications:

Bukachov, A. G. General/ergodic theorems in Banach modules. (Russian) (81j:46077)

Foguel, Shaul R. (with Ghoussoub, Nassif A.) Ornstein-Métivier-Brunel theorem revisited. (French summary) (81d:60065)

Gapoiskin, V. F. A local ergodic theorem for groups of unitary operators and second-order stationary processes. (Russian) (81i:47045)

Ghoussoub, Nassif A. See Foguel, Shaul R., (81d:60065)

Gol'dstein, M. S. An individual ergodic theorem for substochastic operators in von Neumann algebras. (Russian) (81j:46103)

Ergodic theorems and entropy of automorphisms of von Neumann algebras. (Russian) (81j:46104)

Heib, M. P. Lie theory and applications to entropy and approximation. (81f:58008)

Ivanik, Anselm Weak convergence and weighted averages for groups of operators. (81e:22007)

McGrath, S. A. Local ergodic theorems for noncommuting semigroups. (81k:28022)

Parrott, Stephen On a quotient norm and the Sz-Nagy-Foias lifting theorem. (81h:47006)

Salehi, Alan A note on the random mean ergodic theorem. (81j:28030)

Waymire, Ed Zero-range interaction at Bose-Einstein speeds under a positive recurrent single particle law. (81e:60107)

Wolff, Manfred Compact group extensions of Markov operators and products of dependent random variables. (81f:60103)

47A40 Scattering theory [See also 34B25, 35P25, 47Dxx.]

Alsholm, Preben Inverse scattering theory for perturbations of rank one. 81k:47012

Amrein, W. O. (with Pearson, D. B.) The S -matrix for abstract scattering systems. 81c:47013

Anders, Stephen A. Scattering theory and pseudodifferential operators. (Spanish summary) 81i:47014

Arov, D. Z. Stable dissipative linear stationary dynamical scattering systems. (Russian) 81g:47007

Bakulenko, A. F. See Buslaev, V. S., (See 80f:35002)

Balslev, Erik Analytic scattering theory of two-body Schrödinger operators. 81c:47013

Buslaev, V. S. (with Bakulenko, A. F.) A unitary regularizing operator for three-particle scattering. (Russian) (See 80f:35002)

Chandler, Colin (with Gibson, A. G.) Long-range invariance principle revisited. 81h:47008

Dei, V. G. (with Jafaev, D. R.) Spectral theory and scattering for the d'Alembert operator with vector potential. (Russian) 81j:47009

Georgescu, Vladimir On the unique continuation property for Schrödinger Hamiltonians. 81f:47011

Gibson, A. G. See Chandler, Colin, 81h:47008

Gorbačuk, M. L. (with Gorbačuk, V. I.) The scattering problem for first-order differential equations with operator coefficients. (Russian) 81i:47015

Gorbačuk, V. I. See Gorbačuk, M. L., 81i:47015

Guseinov, G. S. The scattering problem for an infinite Jacobi matrix. (Russian)

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Kolmanenko, V. D. Formulation of the scattering problem with singular perturbation in rigged spaces. (Russian) 81f:47012

Oguslan, A. E. The virtual theorem and the trace formula in the Friedrichs model. (Russian) 81m:47017

Pearson, D. B. See Amrein, W. O., 81i:47013

Schechter, Martin Two space scattering theory using the subspace of continuity. 81g:47008

The continuous singular spectrum of the Schrödinger operator. 81k:47014

Sine, Robert Spectral interpolation and a theorem of Tulcea. 81k:47015

Wollenberg, Manfred ★Wave algebras and scattering theory. I. 81h:47010a

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Avila, G. S. S. (with Costa, D. G.) Asymptotic properties of general symmetric hyperbolic systems. (81c:35079)

Bagchi, B. (with Seyler, R. G.) Integral equations and the bound-state problem. (81i:81082)

Baumgärtel, H. (with Demuth, M.) Decoupling by a projection. (81h:47034)

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Cartier, Pierre Théorie de la diffusion pour l'équation de Schrödinger. (81c:35100)

Chadan, Khosrow See Brander, O., (81m:81052)

Costa, D. G. See Avila, G. S. S., (81c:35079)

Cotta-Ramusino, P. (with Krüger, W.; Schrader, Robert) Quantum scattering by external metrics and Yang-Mills potentials. (French summary) (81h:81129)

DeFazio, B. (with Moses, H. E.) The Gelfand-Levitan equation can give simple examples of nonselfadjoint operators with complete eigenfunctions and spectral representations. I. Ghosts and resonances. (81m:81053)

Demuth, M. See Baumgärtel, H., (81h:47034)

Ess, Volker A new method for asymptotic completeness. (81g:81078)

Freese, R. G. See Osborn, T. A.; et al., (81j:70003)

Goldstein, Jerome A. On the interpretation of quantum mechanical scattering measurements. (81f:81071)

Gorini, Vittorio See Parravicini, Guido; et al., (81m:81057)

Howes, S. F. See Osborn, T. A.; et al., (81j:70003)

Ikebe, Teruo (with Isozaki, Hiroshi) Completeness of modified wave operators for long-range potentials. (81c:35131)

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Itatsu, S. (with Kaneta, Hitoshi) Spectral properties of first order ordinary differential operators with short range potentials. (81k:47065)

Jafaev, D. R. Asymptotic completeness for the multidimensional nonstationary Schrödinger equation. (Russian) (81h:81109)

Asymptotic behavior of the solutions of the nonstationary Schrödinger equation. (Russian) (81m:35113)

Jensen, Arne Spectral properties of Schrödinger operators and time-decay of the wave functions results in $L^2(\mathbb{R}^n)$, $n > 5$. (81c:35092)

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Karukovski, V. I. Nonrelativistic scattering on cylinders and spheres. (Bulgarian summary) (81m:81056)

Klepikov, N. P. See Šatim, A. N., (81m:81059)

Korotjaev, E. L. The scattering problem for a slowly decreasing potential that is periodically dependent on time. (Russian. English summary) (81b:35080)

Kruger, W. See Cotta-Ramusino, P.; et al., (81h:81129)

Kuz'menko, A. V. See Vaselev, A. M., (81a:81077)

Lax, Peter D. (with Phillips, Ralph S.) Translation representations for the solution of the non-Euclidean wave equation. (81a:43013)

(with Phillips, Ralph S.) Scattering theory for automorphic functions. (81c:10037)

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Mihulec, V. A. The spectral asymptotic behavior of general smooth elliptic operators. (Russian) (81c:35097)

Morgan, John D., III Schrödinger operators whose potentials have separated singularities. (81c:35044)

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Narnhofer, Heide On asymptotic completeness in scattering theory. (81c:81047)

Newton, Roger G. Quantum action-angle variables for harmonic oscillators. (81d:81060)

Osborn, T. A. (with Freese, R. G.; Howes, S. F.) Levinson's theorems in classical scattering. (81j:70003)

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Parravicini, Guido (with Gorini, Vittorio; Sudarshan, E. C. G.) Resonances, scattering theory, and rigged Hilbert spaces. (81m:81057)

Pearson, D. B. See Amrein, W. O.; et al., (81i:47013)

Perry, Peter A. Mellin transforms and scattering theory. I. Short range potentials. (81c:35101)

- Phillips, Ralph S. See Lax, Peter D., (81a:43013) and Lax, Peter D., (81c:10037)
- Raudiller, I. Constraints on low energy Compton scattering amplitudes. (French summary) (81a:81005)
- Rajseersaars, S. N. M. Gauge invariance and implementability of the S -operator for spin-0 and spin- $\frac{1}{2}$ particles in time-dependent external fields. (81c:81031)
- Salkov, S. P. See Buslaev, V. S.; et al., (81d:81092)
- Satelli, A. N. (with Klepikov, N. P.) The domain of definition of wave operators in multichannel scattering. (Russian) (81m:81059)
- Schrader, Robert See Cotta-Ramusino, P.; et al., (81h:81129)
- Seyler, R. G. See Bagchi, B., (81i:81082)
- Simon, B. Brownian motion, L^p properties of Schrödinger operators and the localization of binding. (81c:35033)
- Sinha, Kalyan B. See Amrein, W. O.; et al., (81h:81110)
- Sitarum, Alladi A note on $L^2(\Gamma \backslash SL(2, \mathbb{R}))$. (81d:22018)
- Subova, M. A. Construction of resonance states for a three-dimensional Schrödinger operator. (Russian) (81d:81021)
- Sudarshan, E. C. G. See Parravicini, Guido; et al., (81m:81057)
- Trifaj, L. The Jost solutions for Yukawa potentials. (81g:81081)
- Turner, R. E. Comments on eikonal and sudden approximations. (81d:81006)
- Uhlenbrock, D. A. Spectral distribution of Laplacians and Kato's inequality. (81g:58043)
- Untimov, V. I. See Ostrovskii, V. N., (81k:81006)
- Vasilev, A. M. (with Kuz'menko, A. V.) Functional integral for scattering amplitude in the presence of long-range forces. (Russian. English summary) (81a:81077)
- Venkov, A. B. Spectral theory of automorphic functions, the Selberg zeta function and some problems of analytic number theory and mathematical physics. (Russian) (81c:10034)
- Yajima, Kenji A multichannel scattering theory for some time dependent Hamiltonians, charge transfer problem. (81j:81057)

47A45 Canonical models for contractions and nonselfadjoint operators

- Bercovici, Hari The theory of operators of class C_0 . (Romanian. English summary) (81h:47009)
- Bol'mov, N. S. Convolutions and multiplier projections connected with generalized eigenvector expansions. (81h:47016)
- Butz, Jeffrey R. Hankel operators with Hilbert space range. (81h:47017)
- Dan, Ștefan See Teodorescu, Radu I., 81m:47019
- D'Jačenko, S. V. Asymptotic stability of semigroups with a strictly dissipative generating operator. (Russian) (81m:47018)
- Do Kung Han' Complete nonunitarity of contractions. (Russian) (81g:47010)
- Foias, Ciprian (with Pearcy, Carl; Sz-Nagy, Béla) The functional model of a contraction and the space L^1 . (81k:47016)
- Kobzei, A. N. Characteristic functions of symmetric operators and their extensions. (Russian. Armenian and English summaries) (81k:47017)
- McEneaney, Brian W. Characteristic functions and dilations of noncontractions. (81e:47014)
- Naboko, S. N. Absolutely continuous spectrum of a nondissipative operator, and a functional model. II. (Russian. English summary) (81h:47018)
- Pearcy, Carl See Foias, Ciprian; et al., 81k:47016
- Pekarev, E. L. Regular and completely nonregular systems of colligations and their characteristic functions. (Russian) (81h:47019)
- Sz-Nagy, Béla See Foias, Ciprian; et al., 81k:47016
- Teodorescu, Radu I. (with Dan, Ștefan) Sur le commutant d'une contraction $T \in C_0 \cup C_0$. (81m:47019)
- Wu, Pei Yuan Hyperinvariant subspaces of C_{11} contractions. II. (81a:47012b)
- Hyperinvariant subspaces of C_{11} contractions. (81a:47012a)
- On contractions of class C_{-1} . (81f:47013)
- On the reflexivity of $C_0(N)$ contractions. (81f:47014)

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- Cole, R. J. Complementary bivariational principles for linear problems involving nonselfadjoint operators. (81i:49009)
- Harvey, Bernard N. A spectral theorem for J -nonnegative operators. (81e:47033)
- Kobzei, A. N. Extensions and the characteristic function of a symmetric operator. (Russian) (81m:47039)
- Kudrajev, Ju. L. A modification of the concept of a characteristic function of a linear bounded operator. (Russian) (81a:47008)
- Valpescu, Ilie The maximal function of a contraction. (81g:47004)

47A50 Equations involving linear operators, with vector unknowns

- Abdelaziz, Nazar H. On solutions of an abstract second order hyperbolic equation in a Hilbert space. (Arabic summary) (81b:47011)
- Aliev, B. Iteration methods for an equation of the second kind on the spectrum. (Russian. Tajiki summary) (81b:47012)
- Bogachev, Ju. P. Singularly perturbed linear equations in spaces of summable functions. (Russian) (81g:47011)
- Donat'skii, E. N. The choice of the regularization parameter in the solution of ill-posed problems. (Russian) (81b:47013)
- Dudak, Zdzisław Some properties of Wronskian in D-R spaces of the Q-L. I. (81a:47013)
- Dittmer, S. Uniqueness of the normal pseudosolution of operator equations, and convergence theorems. (Russian) (81h:47010)
- Hopenwasser, Alan The equation $Tx = y$ in a reflexive operator algebra. (81c:47014)
- Linden, Hansjörg Schranken für Eigenwerte nichtlinearer Eigenwertaufgaben. (English summary) (81c:47015)
- Lomovcev, F. E. The energy inequality method in the investigation of operator equations. I. (Russian. English summary) (81d:47005)
- Menches, L. D. Conditions for linear and finite-dimensional linear regularizability. (Russian) (81b:47014)
- Moszyński, Krzysztof A general scheme for obtaining estimates for interior

- approximation of certain operators in Banach spaces. (Polish) (81a:47014)
- Neuberger, J. W. Boundary value problems for linear systems. (81a:47015)
- Prusko, Tadeusz Operational equations in linear normed spaces and boundary value problems. (81h:47018)
- Przeworska-Rolewicz, Danuta New approach to systems with transformed argument. (81d:47006)
- Rasopova, N. S. Regularizing algorithms. (Russian) (81h:47015)
- Schott, Dieter Zur Lösung linearer Gleichungen mit nichtvertauschbaren Operatoren. (81a:47016)
- Talev, Ž. A singular operator equation with a Carleman shift of order three. (Russian) (81g:47012)
- Tippenhauer, Ulrich Approximation von Operatorgleichungen mit Reprokernen. (English summary) (81d:47007)

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- Allanov, O. M. (with Rumjancev, S. V.) Stability of iteration methods for solving linear ill-posed problems. (Russian) (81b:65049)
- Bart, Harm (with Gohberg, Israel; Kaashoek, Marinus A.) ★ Minimal factorization of matrix and operator functions. (81a:47001)
- Buledza, E. A. Solution of linear equations with an unbounded operator by the multistep method. (Russian) (81g:65068)
- Citric'kil, O. E. See Ljalko, I. I.; et al., (81g:93114)
- Cross, R. W. Unilateral quasiregularizers of closed operators. (81a:47003)
- Didenko, V. P. See Ljalko, I. I.; et al., (81g:93114)
- Domanski, E. N. Regularizing algorithms whose convergence is equivalent to solvability of certain linear operator equations. (Russian) (81m:65004)
- Dzakupov, K. B. Cyclic optimization of iteration processes. (Russian. Kazakh summary) (81m:65006)
- Fenyő, I. S. Eine Darstellung der verallgemeinerten Inversen eines linearen Operators. (English summary) (81b:47023)
- Fialkow, Lawrence A. A note on norm ideals and the operator $X \rightarrow AX - XB$. (81g:47046)
- Gamidor, V. S. Convergence and stability of the projection method in a separable Fréchet space with a basis. (Russian) (81b:65051)
- Gohberg, Israel (with Krupnik, N. Ja.) On composite linear singular integral operators. (See 80c:00006)
- See also Bart, Harm; et al., (81a:47001)
- Goldstein, Jerome A. (with Rosencrans, Steven I.) Energy decay and partition for dissipative wave equations. (81b:34044)
- Green, William L. See Kamen, Edward W., (81j:39002)
- Gukovskii, S. A. Regularization of the construction of a nonsingular solution of a linear equation of the first kind with degeneracy. (Russian) (81b:65042)
- Hangelbroek, R. J. On the dispersion function of transport theory. (81d:82070)
- Jagola, A. G. A generalized principle of the residual in reflexive spaces. (Russian) (81a:65054)
- Kaashoek, Marinus A. See Bart, Harm; et al., (81a:47001)
- Kabulov, R. K. Sufficient conditions for the existence of unbounded solutions of a class of equations. (Russian) (81e:65023)
- Kamen, Edward W. (with Green, William L.) Asymptotic stability of linear difference equations defined over a commutative Banach algebra. (81j:39002)
- König, Hermann A Fredholm determinant theory for p -summing maps in Banach spaces. (81e:47023)
- Kraus, W. Optimal error estimates for linear operator equations. (81g:65069)
- Krupnik, N. Ja. See Gohberg, Israel, (See 80c:00006)
- Ljalko, I. I. (with Didenko, V. P.; Citric'kil, O. E.) ★ Фильтрация шумов. (Russian) [Filtering of noise] (81g:93114)
- Lučka, A. Ju. An approximation-iteration method. (Russian) (81b:65043)
- Meleko, V. I. Properties of pseudo-inverse operators in Banach spaces. (Russian) (81a:47004)
- Moszyński, Krzysztof Concerning some version of the Lax-Milgram lemma in normed spaces. (81i:35050)
- Obatal, Kiri K. Spectral mapping theorem for essential spectra. (81j:47007)
- Przeworska-Rolewicz, Danuta ★ Wstęp do analizy algebraicznej i jej zastosowań. (Polish) [Introduction to algebraic analysis and its applications] (81d:44007)
- Rekant, M. A. Optimality of A. B. Bakusinskii's method in the solution of ill-posed problems with an approximately given operator. (Russian) (81m:65009)
- Rosencrans, Steven I. See Goldstein, Jerome A., (81c:34044)
- Rumjancev, S. V. See Allanov, O. M., (81b:65049)
- Tanana, V. P. Optimal methods for solving ill-posed problems with supplementary information and their application to the solution of the γ -probing of boreholes. (Russian) (81m:65090)
- Travis, C. C. (with Webb, G. F.) Second order differential equations in Banach space. (81j:34110)
- Vinokurov, V. A. On the error of an approximate solution to linear inverse problems. (Russian) (81e:65026)
- Webb, G. F. See Travis, C. C., (81j:34110)

47A53 Fredholm operators

- Antonev, A. B. Operators with shift generated by the action of a compact Lie group. (Russian) (81h:47011)
- Barbanti, Luciano Spectral properties of bounded semi-Fredholm operators. (Italian summary) (81f:47015)
- Berg, I. David Perturbations of operators and the Fredholm index. (81f:47016)
- Charris Castañeda, Jalro A. Certain spaces of holomorphic functions and their applications. II. (Spanish) (81k:47019)
- Grabner, Sandy Ascent, descent and compact perturbations. (81g:47013)
- Gramsch, Bernhard (with Kabbalo, Winfried) Spectral theory for Fredholm functions. (81d:47008)
- Hagen, Roland Über das Symbol von Operatoren, die einer endlichdimensionalen

Algebra angehören. **81b:47016**

Jayankaram, N. Fredholm operators and index theory. **81f:47017**

Kaballo, Winfried Holomorphe semi-Fredholmfunktionen ohne komplementierte Kerne bzw. Bilder. **81b:47017**

See also Gramsch, Bernhard, **81d:47008**

Ljapin's, A. H. Stability of Φ_+ -operators under relatively precompact perturbations. (Russian) **81b:47020a**

A variant of stability theorems. Precompact perturbation of generalized Φ_+ - and relatively regular operators. (Russian) **81b:47020b**

Njaga, V. I. Dependence of the Noether property of singular operators with shift on the presence of angular points on the contour. (Russian) **81g:47014**

Petrov, N. N. Solvability of linear equations in a product of Banach spaces. (Russian) **81m:47020**

Runk, Ju. B. The Jordan structure of linear Noetherian operator-valued functions. (Russian) **81j:47011**

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Berger, Charles A. (with Coburn, Lewis A.) Wiener-Hopf operators on U_2 . **(81c:47031)**

Chevreaux, Bernard On the spectral picture of an operator. **(81k:47002)**

Coburn, Lewis A. See Berger, Charles A., **(81c:47031)**

Cross, R. W. On the continuous linear image of a Banach space. **(81f:47001)**

Doktorik, R. Ja. Some sufficient conditions for invertibility and for Noethericity of operators of boundary value problems. (Russian) **(81h:47041)**

Komjak, I. I. A class of two-dimensional singular integral operators over a circular domain. (Russian. English summary) **(81k:45008)**

Conditions for Noethericity and a formula for the index of a class of singular integral equations over a circular domain. (Russian) **(81k:45009)**

Kumar, Ashok Fredholm composition operators. **(81b:47041)**

Magnus, Robert (with Poston, Tim) Infinite dimensions and the fold catastrophe. **(81h:58018)**

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Poston, Tim See Magnus, Robert, **(81h:58018)**

Sacker, Robert J. The splitting index for linear differential systems. **(81f:34020)**

Seelye, R. The index of differential operators in \mathbb{R}^2 —Fedosov's formula. **(81e:58049)**

Soldatov, A. P. Singular integral operators on the line. (Russian) **(81b:47062)**

Vinogradov, V. S. On the solvability of a singular integral equation. (Russian) **(81k:45005)**

47A55 Perturbation theory

Azoff, Edward (with Clancey, Kevin; Gohberg, Israel) On the spectra of finite-dimensional perturbations of matrix multiplication operators. **81k:47020**

Clancey, Kevin See Azoff, Edward; et al., **81k:47020**

Din' Bai Tham (with Krupnik, N. Ja.) Perturbation of linear operators. (Russian) **81c:47015**

Dym, Harry (with Gohberg, Israel) Extensions of matrix valued functions with rational polynomial inverses. **81g:47015**

Gohberg, Israel See Dym, Harry, **81g:47015** and Azoff, Edward; et al., **81k:47020**

Hejtmánek, J. Dynamics and spectrum of the linear multiple scattering operator in the Banach lattice $L^1(\mathbb{R}^2 \times \mathbb{R}^2)$. **81d:47009**

Karapetjan, N. K. The characteristic part of equations with an almost algebraic element. (Russian. Georgian and English summaries) **81d:47010**

Krupnik, N. Ja. See Din' Bai Tham, **81c:47015**

Levan, N. On the unitary subspace of a dissipative perturbation of a contraction semigroup. **81j:47012**

Markus, A. S. (with Parilis, E. È.) Change of the Jordan structure of a matrix under small perturbations. (Russian) **81j:47013**

Orazov, M. B. Some properties of analytic operator-valued functions of two arguments. (Russian) **81a:47017**

Parilis, E. È. See Markus, A. S., **81j:47013**

Pokrzywa, Andrzej Method of orthogonal projections and approximation of the spectrum of a bounded operator. **81m:47022**

Prisk, Vlastimil Stability of exactness. **81c:47016**

Salinas, Norberto On the distance to the set of compact perturbations of nilpotent operators. **81m:47023**

Shields, Allen L. Approximation by compact operators and the space $H^\infty + C$. **81m:47024**

Veiler, E. L. Small perturbations and theorems on existence and uniqueness of solutions. (Russian) **81m:47025**

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Aiken, John G. (with Erdos, John A.; Goldstein, Jerome A.) Unitary approximation of positive operators. **(81a:47026)**

Atakishiev, N. M. (with Mir-Kasimov, R. M.; Nagiev, Š. M.) A covariant formulation of the relativistic Hamiltonian theory on the light cone (fields with spin). (Russian. English and Azerbaijani summaries) **(81d:81043)**

Avron, Joseph E. On the spectrum of $p^2 + V(x) + \epsilon x$, with V periodic and ϵ complex. **(81d:34017)**

Behncke, Horst Finite-dimensional perturbations. **(81g:47024)**

Berg, I. David Index theory for perturbations of direct sums of normal operators and weighted shifts. **(81a:47029)**

Perturbations of operators and the Fredholm index. **(81f:47016)**

Cross, R. W. Unilateral quasiregularizers of closed operators. **(81a:47003)**

Erdos, John A. See Aiken, John G.; et al., **(81a:47026)**

Goldstein, Jerome A. See Aiken, John G.; et al., **(81a:47026)**

Grabner, Sandy Ascent, descent and compact perturbations. **(81g:47013)**

Gramsch, Bernhard (with Kaballo, Winfried) Spectral theory for Fredholm functions. **(81d:47008)**

Hughes, Rhonda J. The approximation of fractional powers of a closed operator. **(81i:47042)**

(with Segal, Irving E.) Singular perturbations in the interaction representation. **(81m:47065)**

Ingólfsson, K. Numerical estimates in asymptotic series by H^0 -strictly singular perturbations. **(81j:47030)**

Jonas, Peter (with Langer, Heinz) Compact perturbations of definitizable operators. **(81c:47039)**

Kaballo, Winfried See Gramsch, Bernhard, **(81d:47008)**

Langer, Heinz See Jonas, Peter, **(81c:47039)**

Ljapin's, A. H. Stability of Φ_+ -operators under relatively precompact perturbations. (Russian) **(81b:47020a)**

A variant of stability theorems. Precompact perturbation of generalized Φ_+ - and relatively regular operators. (Russian) **(81b:47020b)**

Logvinov, B. V. (with Rahimov, D. G.) The method of false perturbations in the presence of generalized Jordan chains. (Russian) **(81g:65071)**

Martin, Philippe A. ★Modèles en mécanique statistique des processus irréversibles. (French) [Models of irreversible processes in statistical mechanics] **(81c:82002)**

Mazenko, Gene F. (with Sahni, Paramdeep S.) Statistical-mechanical treatment of kinks in a one-dimensional model for dispersive phase transitions. **(81c:82024)**

Mir-Kasimov, R. M. See Atakishiev, N. M.; et al., **(81d:81043)**

Nagiev, Š. M. See Atakishiev, N. M.; et al., **(81d:81043)**

Okazawa, Noboru Singular perturbations of m -accretive operators. **(81g:47035)**

Osterwalder, Konrad Auf dem Weg zu einer relativistischen Quantenfeldtheorie. **(81g:81056)**

Patil, S. H. Ground-state energy of two-dimensional weakly coupled Hamiltonians. **(81j:81011)**

Paulsen, Vern (with Salinas, Norberto) Two examples of nontrivial essentially n -normal operators. **(81c:47024)**

Perel'muter, M. A. Perturbation of operators with an integral resolvent. (Russian) **(81c:47041)**

Plotkin, Ja. D. (with Turbin, A. F.) Decompositions of singularly perturbed analytic semigroups. (Russian) **(81h:47035)**

Power, S. C. The distance to upper triangular operators. **(81i:47022)**

Rahimov, D. G. See Logvinov, B. V., **(81g:65071)**

Sahni, Paramdeep S. See Mazenko, Gene F., **(81c:82024)**

Salinas, Norberto See Paulsen, Vern, **(81c:47024)**

Schechter, Martin Two space scattering theory using the subspace of continuity. **(81g:47008)**

Segal, Irving E. See Hughes, Rhonda J., **(81m:47065)**

Shearer, M. On the null spaces of linear Fredholm operators depending on several parameters. **(81f:47018)**

Titulaer, U. M. The Chapman-Enskog procedure as a form of degenerate perturbation theory. **(81a:82032)**

Turbin, A. F. See Plotkin, Ja. D., **(81h:47035)**

Višik, M. M. A non-Archimedean analogue of perturbation theory. (Russian) **(81d:12015)**

47A60 Functional calculus

Fan, Ky Schwarz's lemma for operators on a Hilbert space. **81k:47021**

Grozdev, S. I. A convolutional approach to initial value problems for equations with right invertible operators. **81f:47021**

Jonas, Peter Zur Existenz von Eigenspektralfunktionen mit Singularitäten. **81c:47017**

Karasev, M. V. The Weyl calculus and the ordered calculus for noncommuting operators. (Russian) **81g:47016**

Kravitsky, Naftali On the discriminant function of two commuting nonselfadjoint operators. **81k:47022**

Müller-Horrig, Volker Zur Spektraltheorie abgeschlossener Operatoren mit nichtleerer Fredholmmenge. **81b:47018**

Us, G. F. Functions of operators that act with respect to different variables. (Russian) **81m:47026**

secondary classifications:

Donoghue, William F., Jr. Monotone operator functions on arbitrary sets. **(81g:47025)**

Giffether, Frank Norm conditions on resolvents of similarities of Hilbert space operators and applications to direct sums and integrals of operators. **(81h:47003)**

Lobanov, S. G. An example of a nonnormable Fréchet space in which every continuous linear operator has an exponential. (Russian) **(81a:46005)**

Mercer, A. McD. On a class of functions of Volterra operators. **(81d:47026)**

Vasilescu, F.-H. Analytic perturbations of the δ -operator and integral representation formulas in Hilbert spaces. **(81d:32009)**

47A62 Equations involving linear operators, with operator unknowns

Berezov'skiĭ, M. I. (with Nagnibida, M. I.) A description of the continuous solutions of the operator equation $Y^2 = d^2/dx^2$ in the space of entire functions. (Russian) **81h:47012**

(with Nagnibida, M. I.) Roots of certain operators in analytic spaces. (Russian) **81c:47016**

den Boer, H. Solving an operator function equation. **81b:47019**

Duggal, B. P. The operator equation $AB + BA^* = A^*B + BA = I$. **81c:47017**

Leo, R. A. (with Soliani, G.) Generalization of the concept of convergence in the sense of Poincaré for certain series of operators in a Banach space. (Italian summary) **81h:47013**

Nagabida, M. I. See Berezovskii, M. I., 81c:47016 and Berezovskii, M. I., 81h:47012
 Nikko, K. Characterization of Lebesgue-type decomposition of positive operators. 81f:47019

Solani, G. See Leo, R. A., 81h:47013

47A65 Structure theory

van Casteren, Jan A. A problem of Sz-Nagy. 81g:47017
 Deckard, Don (with Fialkow, Lawrence A.) Characterization of Hilbert space operators with unitary cross sections. 81b:47020
 Fialkow, Lawrence A. See Deckard, Don, 81b:47020
 Fillmore, P. A. (with Fong, Che Kao; Sourour, A. R.) Real parts of quasinilpotent operators. 81b:47021
 Fong, Che Kao See Fillmore, P. A.; et al., 81b:47021
 Herrero, Domingo A. Possible structures for the set of cyclic vectors. 81h:47023
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 Kirchy, L. On C_0 -operators with property (P). 81f:47020
 Lee, Sa Ge Remarks on reducing operator-valued spectrum. 81f:47021
 Malamud, M. M. Spectral analysis of operators of convolution type. (Russian) 81d:47011
 Mukherjee, R. N. A note on similarity of operators and related results. 81d:47012
 Rosenthal, Erik J. A Jordan form for certain infinite-dimensional operators. 81a:47018
 Sourour, A. R. See Fillmore, P. A.; et al., 81b:47021

secondary classifications:

Apostol, Constantin Universal quasinilpotent operators. (81h:47018)
 Capon, Michèle Primarité de $L_p(L)$. (81i:46022)
 Fialkow, Lawrence A. Similarity cross sections for operators. (81a:47034)
 Gevorkjan, L. Z. On the algebraic structure of a class of nonselfadjoint operators. (Russian. Armenian and English summaries) (81d:46066)
 Gohberg, Israel (with Kaashoek, Marinus A.; van Schagen, F.) Similarity of operator blocks and canonical forms. I. General results, feedback equivalence and Kronecker indices. (81m:15011)
 Kaashoek, Marinus A. See Gohberg, Israel; et al., (81m:15011)
 Radziwvskii, G. V. The completeness of derived chains corresponding to boundary value problems on a finite segment. (Russian) (81c:34015a)
 Completeness of derivative chains corresponding to boundary value problems on the semiaxis. (Russian) (81c:34015b)
 van Schagen, F. See Gohberg, Israel; et al., (81m:15011)
 Stampfli, Joseph G. On selfadjoint derivation ranges. (81a:47036)
 Williams, J. P. On a boundedness condition for operators with a singleton spectrum. (81c:47008)
 Williams, L. R. Equality of essential spectra of quasisimilar quasinormal operators. (81c:47026)
 Equality of essential spectra of certain quasisimilar seminormal operators. (81c:47027)

47A66 (Non)quasitriangular, (non)quasidiagonal operators

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 Power, S. C. The distance to upper triangular operators. 81i:47022

47A67 Representation theory

Fenyő, I. S. Eine Darstellung der verallgemeinerten Inversen eines linearen Operators. (English summary) 81b:47023
 Rajabipour, Mehdi Operators commuting with positive operators. 81d:47013
 Samoilenko, Ju. S. Locally dependent representations of families of normal operators. (Russian) 81h:47014

secondary classifications:

Suci, Nicolae Boundedly absolutely continuous representations of function algebras. (81h:46061)

47A68 Factorization theory

Gohberg, Israel (with Lerer, L.) Factorization indices and Kronecker indices of matrix polynomials. 81d:47014a
 (with Lerer, L.) Erratum: "Factorization indices and Kronecker indices of matrix polynomials". 81d:47014b
 (with Lerer, L.; Rodman, Leiba) Stable factorization of operator polynomials. I. Spectral divisors simply behaved at infinity. 81m:47028a
 (with Lerer, L.; Rodman, Leiba) Stable factorization of operator polynomials. II. Main results and applications to Toeplitz operators. 81m:47028b
 Harbarth, K. (with Langer, Heinz) A factorization theorem for operator pencils. 81c:47018
 Langer, Heinz See Harbarth, K., 81c:47018
 Lerer, L. See Gohberg, Israel, 81d:47014a; Gohberg, Israel, 81d:47014b; Gohberg, Israel; et al., 81m:47028a and Gohberg, Israel; et al., 81m:47028b
 Meruca, I. V. The decomposition into factors of a polynomial operator pencil. (Russian) 81g:47018
 Rodman, Leiba See Gohberg, Israel; et al., 81m:47028a and Gohberg, Israel; et al., 81m:47028b
 Rowley, Brian Wiener-Hopf factorization of operator polynomials. 81i:47023
 Sahmouk, L. A. Factorization of operators in $L^2(a, b)$. (Russian) 81a:47019
 Spitkovskii, I. M. Block operators and related questions of the theory of factorization of matrix-valued functions. (Russian) 81k:47024
 Suci, Ioan Inner-outer factorization on multiply connected domains. 81i:47024

Takahashi, Katsutoshi The factorization in the commutant of a unitary operator. 81b:47024

secondary classifications:

Bart, Harm (with Gohberg, Israel; Kaashoek, Marinus A.) ★ Minimal factorization of matrix and operator functions. (81a:47001)
 Gohberg, Israel (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. I. The finite-dimensional case. (81i:47027a)
 (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. II. The infinite-dimensional case. (81i:47027b)
 See also Bart, Harm; et al., (81a:47001)
 Kaashoek, Marinus A. See Bart, Harm; et al., (81a:47001); Gohberg, Israel; et al., (81i:47027a) and Gohberg, Israel; et al., (81i:47027b)
 Rodman, Leiba (with Schaps, M.) On the partial multiplicities of a product of two matrix polynomials. (81k:15021)
 See also Gohberg, Israel; et al., (81i:47027a) and Gohberg, Israel; et al., (81i:47027b)
 Sahmouk, L. A. Factorization of an operator transfer function. (Russian) (81b:93025)
 Schaps, M. See Rodman, Leiba, (81k:15021)
 Spitkovskii, I. M. Some estimates for partial indices of measurable matrix-valued functions. (Russian) (81k:45004)

47A70 Eigenfunction expansions, rigged Hilbert spaces; eigenvalue problems in general [See also 49Gxx]

Allahverdiev, Dž. E. (with Dzabar-zade, R. M.) Summation by Abel's method of multiple expansions of series in eigen- and adjoint elements of operators that are polynomially dependent on a spectral parameter. (Russian. Azerbaijani and English summaries) 81d:47015
 (with Dzabar-zade, R. M.) Convergence of multiple expansions in eigenelements of a two-parameter operator system. (Russian. Azerbaijani and English summaries) 81i:47025
 Aral, Masaharu Eigenfunction expansions associated with the Schrödinger operators with long-range potentials. 81h:47015
 Arlins'kii, Ju. M. A triangular model of an unbounded quasi-Hermitian operator with a complete system of root subspaces. (Russian. English summary) 81g:47019
 Binding, Paul (with Browne, Patrick J.) Comparison cones for multiparameter eigenvalue problems. 81k:47025
 Bozhinov, N. S. Convolutions and multipliers connected with generalized eigenvector expansions. 81h:47016
 Browne, Patrick J. Abstract multiparameter theory. III. 81c:47019
 See also Binding, Paul, 81k:47025
 Cioaba, G. Stability of spectral properties for sequences of abstract operators of the type of Sturm-Liouville. 81g:47020
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 Dzabar-zade, R. M. See Allahverdiev, Dž. E., 81d:47015 and Allahverdiev, Dž. E., 81i:47025
 Gorjuk, I. V. Double completeness of eigen- and associated vectors of an operator pencil. (Russian) 81f:47022
 Guseinov, M. M. (with Maksudov, F. G.) Expansion in generalized eigen- and associated elements of a linear pencil of operators in a Banach space. (Russian) 81m:47029
 Kierat, W. On orthogonal expansions of certain distributions with respect to eigenfunctions of Sturm-Liouville operators. 81b:47025
 König, Hermann s -numbers, eigenvalues and the trace theorem in Banach spaces. 81i:47026
 Maksudov, F. G. See Guseinov, M. M., 81m:47029
 Sadovnicii, V. A. (with Dubrovskii, V. V.) Some properties of operators with a discrete spectrum. (Russian) 81b:47026
 Tkachenko, V. A. Spectral expansions in spaces of analytic functionals. (Russian) 81g:47021
 Vagabov, N. G. Sectorial operator pencils in a Banach space. (Russian. Azerbaijani and English summaries) 81c:47020
 Vernik, A. N. Summability of series in root vectors of perturbations of differential operators. (Russian) 81g:47022
 Yang, Ming Zhu (with Zhu, Guang Tian) The spectrum of transport operator with continuous energy in inhomogeneous medium with any cavity. 81h:47017
 Zhu, Guang Tian See Yang, Ming Zhu, 81h:47017

secondary classifications:

Alzenman, Michael (with Lieb, Elliott H.) On semiclassical bounds for eigenvalues of Schrödinger operators. (81m:81020)
 Babbitt, Donald (with Thomas, Lawrence) Ground state representation of the infinite one-dimensional Heisenberg ferromagnet. IV. A completely integrable quantum system. (81b:81033)
 Bertero, M. (with de Mol, C.; Viano, G. A.) On the regularization of linear inverse problems in Fourier optics. (81k:78002)
 Borov, V. V. Asymptotic distribution of eigenvalues of a second-quantized operator. (Russian) (81d:58055)
 Browne, Patrick J. (with Sleeman, B. D.) Applications of multiparameter spectral theory to special functions. (81d:33006)
 Butler, John B., Jr. On abstract formulation of the inverse spectral problem for the Sturm-Liouville operator. (Turkish summary) (81k:34015)
 Chatelin-Laborde, Françoise Sur les bornes d'erreur a posteriori pour les éléments propres d'opérateurs linéaires. (English summary) (81d:65027)
 Dubrovskii, V. V. The regularized bi-Laplacian trace with periodic boundary conditions on the square. (Russian. English summary) (81c:35093)

- Eberhard, Walter (with Freiling, Gerhard) Stone-reguläre Eigenwertprobleme. (81g:47051)
- Freiling, Gerhard See Eberhard, Walter. (81g:47051)
- Greenlee, W. M. \star Approximation of eigenvalues by variational methods. (81d:49027)
- Gribov, M. B. (with Nikol'skii, N. K.) Invariant subspaces and rational approximation. (Russian. English summary) (81f:47006)
- Hennig, Stephen C. (with Linz, Peter) Exclusion regions for eigenvalues of linear operators. (81d:49028)
- Ilin, V. A. Approximation of functions by bi-orthogonal series in the eigen- and associated functions of differential operators. (Russian) (81f:47047)
- Kaper, Hans G. (with Leaf, Gary K.) Improved error estimates for the perturbed Galerkin method applied to a class of generalized eigenvalue problems. (81j:65074)
- Karna, O. Some asymptotic estimates of the nearness of roots of holomorphic functions. (Russian. English summary) (81k:30009)
- König, Hermann A formula for the eigenvalues of a compact operator. (81a:47022)
- Leaf, Gary K. See Kaper, Hans G., (81j:65074)
- Lieb, Elliott H. See Alzenman, Michael. (81m:81020)
- Linz, Peter See Hennig, Stephen C., (81d:49028)
- Makuslov, F. G. (with Paiseva, E. E.) A multiple expansion in eigenfunctions. (Russian) (81g:47052)
- Mamedov, K. S. A theorem on the multiple completeness of eigen- and associated vector functions of polynomial and differential-operator pencils. (Russian) (81m:47067)
- Métivier, Guy Valeurs propres d'opérateurs définis par la restriction de systèmes variationnels à des sous-espaces. (81c:35100)
- Mihailuc, V. A. Refinement of asymptotic formulas for the spectrum of the Laplace operator in domains of type $G = G_1 \times G_2$. (Russian) (81g:35099)
- Mikritjan, R. Z. A new criterion characterizing the continuity of a complete system of eigenfunctions of a selfadjoint operator. (Russian. Armenian and English summaries) (81b:47038)
- de Mol, C. See Bertero, M.; et al., (81k:78002)
- Moszyński, Krzysztof Projection methods in the approximate solution of the eigenvalue problem in a Hilbert space. (81m:65080)
- Müller, A. M. K. See Siedentop, H. K. H., (81m:82014)
- Murdock, James (with Robinson, R. Clark) A note on the asymptotic expansion of eigenvalues. (81k:15013)
- Nikol'skii, N. K. See Gribov, M. B., (81f:47006)
- Otelbeev, M. Estimates of S-numbers and conditions for completeness of the system of root vectors of a nonselfadjoint Sturm-Liouville operator. (Russian) (81i:47051)
- Paiseva, E. E. See Makuslov, F. G., (81g:47052)
- Robinson, R. Clark See Murdock, James, (81k:15013)
- Sekriera, I. V. Eigenelements of strongly positive operators. (Russian) (81h:47034)
- Siedentop, H. K. H. (with Müller, A. M. K.) On the relation between k-body interaction and k-particle density. (81m:82014)
- Sleeman, B. D. See Browne, Patrick J., (81d:33006)
- Tasche, Manfred Zur Konvergenzbeschleunigung von Fourier-Reihen. (81h:42033)
- Thomas, Lawrence See Bahbit, Donald, (81b:81033)
- Venkov, A. B. Zeros of ξ - and L -functions of imaginary quadratic fields and eigenvalues of the $PSL(2, \mathbb{Z})$ -automorphic Laplacian. (Russian) (81c:10035)
- Viano, G. A. See Bertero, M.; et al., (81k:78002)

47A99 None of the above, but in this section

- Balinskii, A. I. Generalization of the notions of Bezoutiant and the resultant. (Russian. English summary) (81d:47016)
- Garczyński, W. (with Hańčowski, J.) Restoration of a functional from its functional derivatives. (81e:47018)
- Gohberg, Israel (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. I. The finite-dimensional case. (81i:47027a)
- (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. II. The infinite-dimensional case. (81i:47027b)
- Gulnazarov, A. B. The behavior of a linear operator on trajectories of elements. (Russian. Georgian and English summaries) (81a:47020)
- Hadwin, Donald W. An asymptotic double commutant theorem for C^* -algebras. (81h:47027)
- Hańčowski, J. See Garczyński, W., (81i:47018)
- Kaashoek, Marinus A. See Gohberg, Israel; et al., (81i:47027a and Gohberg, Israel; et al., (81i:47027b)
- Mastroianni, Giuseppe On a linear positive operator. (Italian. English summary) (81i:47028)
- Peller, V. V. Applications of ultraproducts in operator theory. A simple proof of E. Bishop's theorem. (Russian. English summary) (81k:47026)
- Rodman, Leiba See Gohberg, Israel; et al., (81i:47027a and Gohberg, Israel; et al., (81i:47027b)

secondary classifications:

- Anderson, William N., Jr. (with Morley, T. D.; Trapp, George E.) Characterization of parallel subtraction. (81a:94042)
- Chourasia, N. N. Quasimilarity orbit of a subclass of compact operators on a Hilbert space. (81k:47027)
- Deutsch, Frank The alternating method of von Neumann. (81a:65053)
- Krugljak, S. A. (with Samolienko, Ju. S.) Unitary equivalence of sets of selfadjoint operators. (Russian) (81k:47031)
- Morley, T. D. See Anderson, William N., Jr.; et al., (81a:94042)
- Rehder, Wulf When do projections commute? (81h:81013)
- Roseblum, Marvin A corona theorem for countably many functions. (81e:46034)
- Samolienko, Ju. S. See Krugljak, S. A., (81k:47031)
- Trapp, George E. See Anderson, William N., Jr.; et al., (81a:94042)
- Zdanok, T. A. The stability of the solvability of an equation with a random closed linear operator. (Russian) (81h:60091)

47BXX Single linear operators: special classes of operators

secondary classifications:

- Halmos, P. R. Ten years in Hilbert space. (81c:47003)
- 47B05 Compact operators, Riesz operators
- Alena, P. (with Oliveri, U.) Generalized Riesz operators on Banach spaces. (Italian) (81e:47019)
- Apostol, Constantin Universal quasinilpotent operators. (81h:47018)
- Barria, José On power compact operators. (81f:47023)
- Chourasia, N. N. Quasimilarity orbit of a subclass of compact operators on a Hilbert space. (81k:47027)
- Fan, Peng (with Fong, Che Kao) Which operators are the self-commutators of compact operators? (81f:47024)
- Fong, Che Kao See Fan, Peng, (81f:47024)
- Johnson, Jerry (with Wolfe, John) Norm attaining operators. (81a:47021)
- König, Hermann A formula for the eigenvalues of a compact operator. (81a:47022)
- Laurie, Cecelia (with Radjavi, Heydar) On the West decomposition of Riesz operators. (81e:47020)
- Murphy, G. J. (with West, T. T.) Decomposition algebras of Riesz operators. (81a:47023)
- Olariu, Angela Generalization of the notion of a compact operator. (Romanian summary) (81g:47023)
- Oliveri, U. See Alena, P., (81e:47019)
- Pokrzywa, Andrzej Spectra of compressions of an operator with compact imaginary part. (81k:47028)
- Radjavi, Heydar See Laurie, Cecelia, (81e:47020)
- Solomjak, B. M. Complete extensions of compact operators with preservation of class. (Russian) (81m:47030)
- Tacon, D. G. Nonstandard extensions of transformations between Banach spaces. (81e:47021)
- Voigt, Jürgen On Y -closed subspaces of X , for Banach spaces $X \subset Y$; existence of alternating elements in subspaces of $C(J)$. (81b:47028)
- West, T. T. See Murphy, G. J., (81a:47023)
- Wolfe, John See Johnson, Jerry, (81a:47021)

secondary classifications:

- Akemann, Charles A. (with Wright, Steve) Compact actions on C^* -algebras. (81k:46063)
- Allprantis, Charalambos D. (with Burkinshaw, Owen) Positive compact operators on Banach lattices. (81m:47053)
- Appel, Ju. Measures of noncompactness and approximations in locally convex spaces. (Russian) (81k:46008)
- Bilyeu, Russell G. (with Lewis, Paul W.) Compact operators, weakly compact operators, and smooth points. (81m:47058)
- Burkinshaw, Owen See Allprantis, Charalambos D., (81m:47053)
- Cross, R. W. On the continuous linear image of a Banach space. (81f:47001)
- Hill, L. Thomas Spectral analysis of finite convolution operators with matrix kernels. (81c:47050)
- Hilsum, Michel Opérateurs compacts dans une algèbre de von Neumann. (81a:47038)
- Kumar, Ashok See Singh, R. K., (81g:47033)
- Lewis, Paul W. See Bilyeu, Russell G., (81m:47058)
- Lima, Ásvald M -ideals of compact operators in classical Banach spaces. (81c:47047)
- Russo, G. I. Volterra operators with imaginary components from a given symmetrically normed ideal. (Russian) (81k:47058)
- Sharma, S. D. See Singh, R. K., (81m:47046)
- Shields, Allen L. Approximation by compact operators and the space $H^\infty + C$. (81m:47024)
- Singh, R. K. (with Kumar, Ashok) Compact composition operators. (81g:47033)
- (with Sharma, S. D.) Noncompact composition operators. (81m:47046)
- Spitkovskii, I. M. Block operators and related questions of the theory of factorization of matrix-valued functions. (Russian) (81k:47024)
- Stephani, Imtraud Operator ideals generalizing the ideal of strictly singular operators. (81m:47062)
- Ustinov, G. M. Linear operators in spaces of vector-valued affine functions. (Russian) (81a:46039)
- Wright, Steve See Akemann, Charles A., (81k:46063)
- Wrobel, Volker Zur Fredholm-Riesz-Theorie in lokalkonvexen Räumen. (81m:47021)

47B10 Hilbert-Schmidt operators, trace class operators, nuclear operators, p -summing operators, etc.

- Ando, T. See van Hemmen, J. Leo, (81j:47014)
- Gi, M. I. Estimates of the norm of a function of a Hilbert-Schmidt operator. (Russian) (81f:47025a)
- Estimates of the norm of the resolvent of a completely continuous operator. (Russian) (81f:47025b)
- Gluskin, E. D. Some ideal norms in the space of bounded operators. (Russian) (81k:47029)
- (with Kisiljakov, S. V.; Refnov, O. I.) Tensor products of p -absolutely summing operators and right (I_p, N_p) -multipliers. (Russian. English summary) (81f:47026)
- (with Pietsch, Albrecht; Puhl, J.) A generalization of Khintchine's inequality and its application in the theory of operator ideals. (81m:47031)
- van Hemmen, J. Leo (with Ando, T.) An inequality for trace ideals. (81j:47014)
- Kisiljakov, S. V. See Gluskin, E. D.; et al., (81f:47026)
- König, Hermann On the spectrum of products of operator ideals. (81m:47032)
- Weyl-type inequalities for operators in Banach spaces. (81e:47022)
- (with Retherford, James R.; Tomczak-Jaegermann, Nicole) On the eigenvalues of $(p, 2)$ -summing operators and constants associated with normed spaces. (81m:47033)

A Fredholm determinant theory for p -summing maps in Banach spaces.

81e:47023

Kwapień, Stanisław (with Pelczyński, Aleksander) Absolutely summing operators and translation-invariant spaces of functions on compact abelian groups. 81j:47015

Livšyn, G. L. Traces of linear operators in locally convex spaces. (Russian) 81e:47024

Mayer, Dieter H. On composition operators on Banach spaces of holomorphic functions. 81e:47025

Nakamura, Masatoshi On $(\Phi, \Psi; p)$ -quasi-integral operators. 81e:47021

Niculescu, Constantin P. Absolute continuity in Banach space theory. 81b:47029

Pelczyński, Aleksander See Kwapień, Stanisław, 81j:47015

Pietuch, Albrecht See Gluskin, E. D.; et al., 81m:47031

Piś, J. The trace of finite and nuclear elements in Banach algebras. 81a:47024

See also Gluskin, E. D.; et al., 81m:47031

Reinov, O. I. Examples of nonnuclear operators that are simultaneously integral and quasinuclear. (Russian. English summary) 81k:47030

See also Gluskin, E. D.; et al., 81f:47026

Retherford, James R. See König, Hermann; et al., 81m:47033

Saworotnow, Parfeny P. Characterization of the trace-class. 81b:47030

Tijl, Nicolae On A - p -summing operators. (Italian summary) 81e:47026

Operators of A - ϕ type. (Italian summary) 81e:47027

On some classes of operators. (Romanian. French summary) 81e:47022

$l_{p,q}$ operators and (Φ, φ) -spaces. 81f:47027

Tonczak-Jaegermann, Nicole See König, Hermann; et al., 81m:47033

Ustinov, G. M. Absolutely summing operators in spaces of vector-valued continuous functions. (Russian) 81a:47025

secondary classifications:

Adamjan, V. M. (with Arov, D. Z.; Krein, M. G.) Infinite Hankel block matrices and related extension problems. (See 80c:00006)

Aiken, John G. (with Erdős, John A.; Goldstein, Jerome A.) Unitary approximation of positive operators. (81a:47026)

Appier, O. D. (with Otelbaev, M.) The spectrum of one class of binomial operators. (Russian) (81j:35084)

Arov, D. Z. See Adamjan, V. M.; et al., (See 80c:00006)

Biel, Ron C. Multidimensional extensions of the Grothendieck inequality and applications. (81b:43008)

Driech, Thomas Generalization of Gleason's theorem. (81g:46092)

Erdős, John A. See Aiken, John G.; et al., (81a:47026)

Goldstein, Jerome A. See Aiken, John G.; et al., (81a:47026)

Gordon, Y. p -local unconditional structure of Banach spaces. (81j:46024)

Kato, Mikio See Miyazaki, Kenichi, (81e:47038)

König, Hermann s -numbers, eigenvalues and the trace theorem in Banach spaces. (81f:47026)

Krein, M. G. See Adamjan, V. M.; et al., (See 80c:00006)

Mittel, A. A. (with Russu, G. I.) Symmetrically normed ideals weakly intermediate between γ_1 and some γ_p . (Russian) (81e:47057)

Miyazaki, Kenichi (with Kato, Mikio) A note on limit orders of operator ideals. (81e:47038)

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47B25 Symmetric and selfadjoint operators (unbounded)

- Aleksandrjan, P. A. (with Mkrtčjan, R. Z.) The qualitative nature of the spectrum of a selfadjoint operator acting in a separable Hilbert space. (Russian) (See 80f:35002)
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- Arfinkii, Ju. M. Regular (+)-extensions of quasi-Hermitian operators in rigged Hilbert spaces. (Russian. Armenian and English summaries) (81g:47003)
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- Basor, E. L. A localization theorem for Toeplitz determinants. 81c:47029
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- Azoff, Edward (with Clancey, Kevin; Gohberg, Israel) On the spectra of finite-dimensional perturbations of matrix multiplication operators. (81k:47020)
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 (with Lerer, L.; Rodman, Leiba) Stable factorization of operator polynomials. II. Main results and applications to Toeplitz operators. (81m:47028b)
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47B37 Operators on special spaces (weighted shifts, operators on sequence spaces, etc.)

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- de Korvin, André. See Cheney, C. A., (81c:28004)
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- Aleksandrov, A. B. Invariant subspaces of the backward shift operator in the space H^p ($p \in (0, 1)$). (Russian. English summary) (81h:46018)
 Berezovskii, M. I. (with Nagnibida, M. I.) Roots of certain operators in analytic spaces. (Russian) (81c:47016)
 Berkson, Earl (with Porta, Horacio) The group of isometries on Hardy spaces of the n -ball and the polydisc. (81m:32006)
 Busoni, Giorgio (with Frosali, Giovanni; Mangiarotti, Luigi) Some applications of functional analysis to problems of neutron transport. (81i:82078)
 Čerškii, Ju. I. Shift operators in the theory of generalized functions. (Russian) (81c:46029)
 Cristescu, Romulus. Sur la représentation intégrale de certains opérateurs linéaires. (81k:47050)
 Dine, Madhavi. Composition of fractional integral operator and an operator with Fourier-type kernel. (81h:47040)
 Enflo, P. (with Starbird, T. W.) Subspaces of L^1 containing L^1 . (81j:46034)
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 Gilbert, John E. Nikitin-Stein theory and factorization with applications. (81g:42023)
 Glinka, E. D. An estimate of distances between finite-dimensional symmetric spaces. (Russian. English summary) (81b:46038)
 Ivanov, S. S. See Petrina, D. Ja.; et al., (81a:81081)
 Iwański, Anzeim. Norm attaining operators on Lebesgue spaces. (81a:47045)

- Koldobskii, A. L. Isometric operators in $L^p(X; \mathbb{R}^n)$. (Russian) (81c:43004)
 Korobeinik, Ju. F. A functional equation. I. (Russian) (81j:30090)
 Korotkov, V. B. Some properties of integral and partially integral operators in L_2 . (Russian) (81k:47070)
 Mangiarotti, Luigi. See Busoni, Giorgio; et al., (81i:82078)
 McKennon, Kelly. The multiplication functions of Kučera. (81c:46032)
 Millet, Annie (with Sucheston, Louis) On the existence of σ -finite invariant measures for operators. (81j:60073)
 Milman, Mario. Interpolation of operators of mixed weak-strong type between rearrangement invariant spaces. (81b:46039)
 Mjasnikov, A. G. (with Sazonov, L. I.) Singular integral operators with a non-Carleman shift on an open contour. (Russian) (81g:47057)
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 Rhoades, Adolf. Numerische Wertebereiche linearer Operatoren und Einschließungsmengen für die nichttrivialen Eigenwerte von Integraloperatoren mit stochastischen Kernen. (81b:47005)
 Roan, Raymond C. Composition operators on a space of Lipschitz functions. (81g:30046)
 Rubio de Francia, José L. Vector-valued inequalities for operators in L^p -spaces. (81g:42024)
 Ruch, Ernst (with Schraner, Rudolf; Seligman, Thomas H.) Generalization of a theorem by Hardy, Littlewood, and Pólya. (81m:26015)
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 Lutz, Dieter. Über operatorwertige Lösungen der Funktionalgleichung des Cosinus. (81f:47043)
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 Krein, M. G. (with Nudel'man, A. A.) Direct and inverse problems for the frequencies of boundary dissipation of a nonuniform string. (Russian) **(81d:34018)**
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- Batty, C. J. K. Dissipative mappings and well-behaved derivations. **(81b:47044)**
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 Deckard, Don (with Flalkow, Lawrence A.) Characterization of Hilbert space operators with unitary cross sections. **(81b:47020)**
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Carlson, R. C. (with Goodearl, K. R.) Commutants of ordinary differential operators. (81g:12025)

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Wood, James Unbounded multipliers on commutative Banach algebras. (81f:46063)

47C10 Operators in *-algebras

47C15 Operators in C^* - or von Neumann algebras

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Dudek, Zbigniew Some properties of Wronskian in D-R spaces of the Q-L. I. (81a:47013)

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47D05 Semigroups of operators (For nonlinear operators, see 47H20; see also 20M20.)

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Bakker, N. Ju. (with Tarasov, R. P.) Stable solution of a class of convolution type integral equations of the first kind. (Russian) (81b:45004)

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Belyi, A. G. A perturbation formula for the propagator of the Schrödinger equation. (Russian) (81a:47049)

Blank, Jiří (with Exner, P.; Havlíček, Miloslav) Quantum-mechanical pseudo-Hamiltonians. (81b:81009)

Bucan, G. P. A continuity condition for a stochastic semigroup. (Russian. English summary) (81b:60088)

Chen, Goong (with Grimmer, Ronald) Semigroups and integral equations. (81f:45026)

Derndinger, Roland (with Nagel, Rainer) Der Generator stark stetiger Verbandshalbgruppen auf $C(X)$ und dessen Spektrum. (81b:47045)

Devinatz, Allen (with Malliavin, Paul) On the possibility of defining the

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D'Jačenko, S. V. Asymptotic stability of semigroups with

Kushner, Harold J. Jump-diffusion approximations for ordinary differential equations with wide-band random right-hand sides. (81i:60067)

Lasiecka, Irena Unified theory for abstract parabolic boundary problems—a semigroup approach. (81m:35077)

Leo, R. A. (with Soliani, G.) Generalization of the concept of convergence in the sense of Poincaré for certain series of operators in a Banach space. (Italian summary) (81h:47013)

Levan, N. On the unitary subspace of a dissipative perturbation of a contraction semigroup. (81j:47012)

Controllability, ϵ -controllability and stabilizability. (81m:93014)

Lauchgy, Harald Invariant extensions of positive operators and extreme points. (81g:47038)

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Melnikova, I. V. The connection between the Dirichlet and Cauchy problems. (Russian) (81f:35029)

Nagel, Rainer See Derndinger, Roland, (81b:47045)

Navarro, Carlos B. Brief survey of semigroup theory and its applications to evolution problems. (81c:34052)

Nieto, Makiko On nonlinear semigroups for Markov processes associated with optimal stopping. (81a:60057)

Pagnet, Luc Semi-groupes généralisés, semi-groupes et opérateurs paraboliques. (English summary) (81c:35061)

Point, Nelly See Ukal, Selji; et al., (81i:45018)

Podewil, Andrzej A sufficient condition for the Hamiltonian evolution. (81j:81013)

Salamon, D. Observers and duality between observation and state feedback for time delay systems. (81m:93018)

Sato, Ryōtarō On abstract mean ergodic theorems. II. (81c:47012)

Schaefer, Helmut H. Ordnungsstrukturen in der Operatoretheorie. (81f:47038)

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Tarasov, R. P. (with Bakaev, N. Ju.) An inverse problem. (Russian) (81b:34053)

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Terehin, A. P. A multiparameter semigroup of operators, mixed moduli and partial approximations. (Russian) (81b:41091)

Totaro, Silvia Approximation of evolution problems in Banach spaces. (81k:34062)

Ukal, Selji (with Point, Nelly; Ghidouche, Hamid) Sur la solution globale du problème mixte de l'équation de Boltzmann nonlinéaire. (81i:45018)

Vu Kuok Fong Universality of the operator of differentiation in $L^p(0, \infty)$ and inequalities for powers of dissipative operators. (Russian) (81i:47039)

von Wahl, Wolf Regularity questions for the Navier-Stokes equations. (81f:35099)

Webb, G. F. An age-dependent epidemic model with spatial diffusion. (81k:92052)

Yagi, Atsuhiko On a class of linear evolution equations of "hyperbolic" type in reflexive Banach spaces. (81c:34055)

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47D07 Markov semigroups {For Markov processes, see 60Jxx.}

secondary classifications:

Bharucha-Reid, A. T. Markov branching processes and semigroups of operators. (See 81c:00064)

Dynkin, E. B. Minimal excessive measures and functions. (81a:60086)

Feyel, Denis Espaces de Banach fonctionnels adaptés. Quasi-topologies et balayage. (81c:31006)

Itô, Masayuki Positive eigen elements for an infinitesimal generator of a diffusion semigroup and their integral representations. (81m:31002)

Rubinson, A. M. A problem of F. Terpe and J. Flachsmeier. (Russian) (81g:54023)

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Dreseler, Bernd Symmetrization formulas and norm estimates of projections in multivariate polynomial approximation. (81m:65085)

Elliott, George A. Universally weakly inner one-parameter automorphism groups of separable C^* -algebras. (81i:46069)

47D15 Linear spaces of operators

Arazy, Jonathan A remark on complemented subspaces of unitary matrix spaces. 81g:47044

Bilyeu, Russell G. (with Lewis, Paul W.) Compact operators, weakly compact operators, and smooth points. 81m:47058

Huff, R. On nondensity of norm-attaining operators. 81i:47046

Kudrjavcev, G. I. Convergent sequences of linear operators. (Russian) (See 81c:32001)

Lewis, Paul W. See Bilyeu, Russell G., 81m:47058

Ruess, W. Spaces of compact operators on Banach spaces. 81m:47059

secondary classifications:

Axler, Sheldon (with Berg, I. David; Jewell, Nicholas; Shields, Allen L.)

Approximation by compact operators and the space $H^\infty + C$. (81h:30053)

Berg, I. David See Axler, Sheldon; et al., (81h:30053)

Diestel, J. (with Morrison, T. J.) The Radon-Nikodým property for the space of operators. I. (81g:46024)

Feder, Moshe On subspaces of spaces with an unconditional basis and spaces of operators. (81m:46026)

Heinrich, Stefan Closed operator ideals and interpolation. (81f:47045)

Jewell, Nicholas See Axler, Sheldon; et al., (81h:30053)

Johnson, Jerry (with Wolfe, John) Norm attaining operators. (81a:47021)

Lau, Ka Sing On a sufficient condition for proximity. (81b:46033)

Lewis, D. R. Ellipsoids defined by Banach ideal norms. (81i:46028)

Morrison, T. J. See Diestel, J., (81g:46024)

Samaraski, V. G. The absence of local unconditional structure in some spaces of operators. (Russian. English summary) (81g:47049)

Șerban-Tofan, Dolina Spaces of regular operators. (Romanian. French summary) (81h:46006)

Shields, Allen L. See Axler, Sheldon; et al., (81h:30053)

Tam, F. K. Isometries of L_p -spaces associated with semifinite von Neumann algebras. (81h:46079)

Wolfe, John See Johnson, Jerry, (81a:47021)

47D20 Convex sets and cones of operators

secondary classifications:

McDonald, John N. Some operators on $L^2(dm)$ associated with finite Blaschke products. (81c:47033)

Rao, M. M. Bistochastic operators. (81a:47032)

47D25 Operator algebras and ideals, on Hilbert space

Anderson, Joel Pathology in the Calkin algebra. 81g:47045

Arazy, Jonathan Some remarks on interpolation theorems and the boundness of the triangular projection in unitary matrix spaces. 81k:47056

Addendum: "Some remarks on interpolation theorems and the boundness of the triangular projection in unitary matrix spaces". 81k:47056b

Douglas, Ronald G. Equivalence problems for operators. 81j:47034

Fiolkow, Lawrence A. A note on norm ideals and the operator $X \rightarrow AX - XB$. 81g:47046

de la Harpe, Pierre Initiation à l'algèbre de Calkin. 81c:47045

Hopenwasser, Alan (with Larson, David) The carrier space of a reflexive operator algebra. 81c:47046

Jafarian, A. A. (with Radjavi, Heydar) Compact operator ranges and reductive algebras. 81a:47044

Larson, David See Hopenwasser, Alan, 81c:47046

Mitttel, A. A. (with Russu, G. I.) Symmetrically normed ideals weakly intermediate between γ_1 and some γ_p . (Russian) 81k:47057

Radjavi, Heydar See Jafarian, A. A., 81a:47044

Russu, G. I. Volterra operators with imaginary components from a symmetrically-normed ideal. (Russian) 81b:47053

Volterra operators with imaginary components from a given symmetrically

normed ideal. (Russian) 81k:47058

See also Mitttel, A. A., 81k:47057

secondary classifications:

Ando, T. See van Hemmen, J. Leo, (81j:47014)

Bartoszewicz, Artur Kolmogoroff consistency theorem for Gleason measures. (81f:46079)

Berberian, S. K. Normal derivations in operator algebras. (81c:46054)

Chatterjee, Supriya See Yadav, B. S., (81m:47015)

Dan, Ștefan See Teodorescu, Radu I., (81m:47019)

Ghatage, Pratibha C^* -algebras generated by weighted shifts. (81c:46040)

de la Harpe, Pierre The algebra of compact operators does not have any finite-codimensional ideal. (81b:17010)

van Hemmen, J. Leo (with Ando, T.) An inequality for trace ideals. (81j:47014)

König, Hermann Weyl-type inequalities for operators in Banach spaces. (81c:47022)

Nordgren, E. A. (with Radjabipour, Mehdi; Radjavi, Heydar; Rosenthal, Peter) On invariant operator ranges. (81c:47010)

Ong, Sing Cheong Invariant operator ranges of nest algebras. (81f:47008)

Pietsch, Albrecht Open problems, presented at the third seminar (Poland-GDR) on operator ideals and geometry of Banach spaces, Georgenthal, April 2-11, 1978. (81k:46015)

Radjabipour, Mehdi See Nordgren, E. A.; et al., (81c:47010)

Radjavi, Heydar See Nordgren, E. A.; et al., (81c:47010)

Rosenthal, Peter See Nordgren, E. A.; et al., (81c:47010)

Szankowski, A. The space of all bounded operators on Hilbert space does not have the approximation property. (81i:46013)

Takeuti, Gaisi Boolean valued analysis. (81c:03045)

Teodorescu, Radu I. (with Dan, Ștefan) Sur le commutant d'une contraction $T \in C_0 \cup C_0$. (81m:47019)

Vidav, Ivan ★ Uvod v teorijo C^* -algebr. (Slovenian) [Introduction to the theory of C^* -algebras] (81a:46002)

Yadav, B. S. (with Chatterjee, Supriya) On a partial solution of the transitive algebra problem. (81m:47015)

47D30 Operator algebras and ideals, on Banach spaces and other linear topological spaces

- Buoni, J. J. (with Klein, A.) Remarks on the generalized Calkin algebras. **81m:47060**
 Hackenbroch, Wolfgang Operator algebras and generalized orderings in vector spaces. **81f:47044**
 Heinrich, Stefan Finite representability and super-ideals of operators. **81g:47047**
 Closed operator ideals and interpolation. **81f:47045**
 Herrero, Domingo A. Operator algebras of finite strict multiplicity. II. **81g:47048**
 Iwanik, Anzelm Norm attaining operators on Lebesgue spaces. **81a:47045**
 Kato, Mikio See Miyazaki, Kenichi, **81e:47038**
 Klein, A. See Buoni, J. J., **81m:47060**
 Lima, Ásvold M -ideals of compact operators in classical Banach spaces. **81c:47047**
 Miyazaki, Kenichi (with Kato, Mikio) A note on limit orders of operator ideals. **81e:47038**
 Pahl, J. Selfadjoint and completely symmetric operator ideals. **81m:47061**
 Samarskii, V. G. The absence of local unconditional structure in some spaces of operators. (Russian. English summary) **81g:47049**
 Schwarz, H.-U. Banach lattices of bounded operators. **81b:47054**
 Stephani, Ingrid Operator ideals generalizing the ideal of strictly singular operators. **81m:47062**
 Tjå, Nicolae Some operator ideals stable to the tensor product. **81m:47063**

secondary classifications:

- Ghukin, E. D. Some ideal norms in the space of bounded operators. (Russian) **(81k:47029)**
 (with Kisiljakov, S. V.; Reinov, O. I.) Tensor products of p -absolutely summing operators and right $(\mathcal{L}_p, \mathcal{L}_p)$ -multipliers. (Russian. English summary) **(81f:47026)**
 (with Pietsch, Albrecht; Pahl, J.) A generalization of Khintchine's inequality and its application in the theory of operator ideals. **(81m:47031)**
 Hensel, Julien A note on M -ideals in $B(X)$. **(81b:46021)**
 Kisiljakov, S. V. See Ghukin, E. D.; et al., **(81f:47026)**
 Losert, Viktor Dualität von Funktoren und Operatorenideale. **(81m:46099)**
 Lykova, Z. A. On conditions for projectivity of Banach algebras of completely continuous operators. (Russian. English summary) **(81m:46098)**
 Niculescu, Constantin P. Absolute continuity in Banach space theory. **(81b:47029)**
 Pietsch, Albrecht \star Operator ideals. **(81a:47002)**
 \star Operator ideals. **(81j:47001)**
 See also Ghukin, E. D.; et al., **(81m:47031)**
 Pihli, V. S. A priori estimates for a class of one-dimensional singular integral operators with discontinuous coefficients. (Russian) **(81k:47072)**
 Pahl, J. See Ghukin, E. D.; et al., **(81m:47031)**
 Racher, Gerhard Über c_0 -modulensorprodukte. (English summary) **(81m:46096)**
 Reinov, O. I. See Ghukin, E. D.; et al., **(81f:47026)**
 Reissner, Shlomo On Banach spaces having the property G.L. **(81b:46025)**
 Tjå, Nicolae Operators of $A \rightarrow$ type. (Italian summary) **(81e:47027)**
 Tomczak-Jaegermann, Nicole Finite-dimensional subspaces of uniformly convex and uniformly smooth Banach lattices and trace classes S_p . **(81j:46036)**
 Zemánek, Jaroslav Spectral characterization of two-sided ideals in Banach algebras. (Russian) **(81b:46051)**

47D35 Dual spaces of operator algebras and topological groups

47D40 Algebras of unbounded operators

- Gudder, Stanley P. Families of completely positive mappings. **81k:47059**
 Inoue, Atsushi (with Kuriyama, Ken) Topologies on unbounded operator algebras. **81i:47047**
 Kuriyama, Ken See Inoue, Atsushi, **81i:47047**
 Timmermann, B. (with Timmermann, W.) Über einige Topologien auf der Algebra der CCR (endlich viele Freiheitsgrade). **81k:47060**
 Timmermann, W. On an ideal in algebras of unbounded operators. **81k:47061a**
 Ideals in algebras of unbounded operators. **81k:47061b**
 Ideals in algebras of unbounded operators. II. **81k:47061c**
 See also Timmermann, B., **81k:47060**

secondary classifications:

- Inoue, Atsushi (with Ōta, Shōichi) Derivations on algebras of unbounded operators. **(81k:46073)**
 Lasser, Gisela A. Operator symbols in the description of observable-state systems. **(81b:81047)**
 Ōta, Shōichi See Inoue, Atsushi, **(81k:46073)**
 Schmüdgen, Konrad Uniform topologies on enveloping algebras. **(81m:17015)**

47D45 Applications to physics

- Jørgensen, Palle E. T. Commutators of Hamiltonian operators and nonabelian algebras. **81a:47046**

secondary classifications:

- Bonomatto, S. A. (with Pollock, M. D.) The unitary Bogoliubov transformation for a quantized scalar field in a Friedman space-time. **(81k:83024)**
 Dadashov, L. A. (with Kuliev, V. Ju.) Uninvertible linear canonical transformations. **(81g:81038)**
 Flato, Monbē Theory of analytic vectors and applications. **(81j:22005)**
 Kuliev, V. Ju. See Dadashov, L. A., **(81g:81038)**
 Morgan, M. J. The linear transverse Ising model with four-spin interactions. (German summary) **(81i:82068)**

Pollock, M. D. See Bonomatto, S. A., **(81k:83024)**

Posiewnik, Andrzej Extension of quantum dynamical semigroups. **(81a:47041)**
 One property of dynamical semigroups. **(81a:47042)**

Schäfer, G. Effective Lagrangian and pair production in cosmology. **(81c:83029)**
 Scutaru, Horia Estimations of the entropy of a quantum state with the aid of covariant and contravariant symbols. **(81c:81023)**

Wehrli, Alfred A remark on the concavity of entropy. **(81a:82026)**

47D99 None of the above, but in this section

Feinulaev, R. B. An algebra of linear continuous mappings. (Russian) **81k:47062**

Feyel, Denis Propriétés de permanence du domaine d'un générateur infinitésimal. **81a:47047**

Compléments sur la convergence presque sûre des familles résolues. **81a:47048**
 Mustafae, L. G. Semigroups of linear continuous transformations. (Russian. English and Azerbaijani summaries) **81k:47063**

secondary classifications:

- Babaev, É. A. Semiheaps of semilinear mappings. (Russian. Azerbaijani and English summaries) **(81j:20105)**
 Bucan, G. P. See Bucan, S. P., **(81a:60070)**
 Bucan, S. P. (with Bucan, G. P.) The regular relation between additive and multiplicative homogeneous stochastic semigroups. (Russian) **(81a:60070)**
 Cieogna, G. A method from categories for introducing a general notion of convergence and limit. **(81k:18002)**
 Gohberg, Israel (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. I. The finite-dimensional case. **(81i:47027a)**
 (with Kaashoek, Marinus A.; Rodman, Leiba) Spectral analysis of families of operator polynomials and a generalized Vandermonde matrix. II. The infinite-dimensional case. **(81i:47027b)**
 Kaashoek, Marinus A. See Gohberg, Israel; et al., **(81i:47027a)** and Gohberg, Israel; et al., **(81i:47027b)**
 Lando, Ju. K. The principle of conjugate correspondence and the problem of controllability. (Russian) **(81e:93015)**
 Miak, Włodzimierz Dilations of Hilbert space operators (general theory). **(81j:47000)**
 Pyter, Ju. P. Problems of image restoration. (Russian) **(81a:94029)**
 Rodman, Leiba See Gohberg, Israel; et al., **(81i:47027a)** and Gohberg, Israel; et al., **(81i:47027b)**
 Skorobod, T. A. Closure of stochastic semigroups. (Russian) **(81c:60075)**

47E05 Ordinary differential operators [See also 34B25, 58Fxx.]

- Berezovskaja, G. M. (with Berezovskij, M. I.) On asymptotic representation of A -basis functions. (Russian) **81i:47048**
 Berezovskij, M. I. See Berezovskaja, G. M., **81i:47048**
 Brak, V. M. Maximal dissipation of a second-order differential operator with unbounded operator coefficient. (Russian) **81g:47050**
 Carlson, Robert Local completeness for eigenfunctions of regular maximal ordinary differential operators. **81c:47039**
 Coddington, Earl A. Differential subspaces associated with pairs of ordinary differential operators. **81i:47049**
 Demitričenko, V. A. The spectrum of a generalized Hill operator. (Russian) **81b:47055**
 Eberhard, Walter (with Freiling, Gerhard) Stone-reguläre Eigenwertprobleme. **81g:47051**
 Eischer, Johannes (with Silbermann, Bernd) Eine Klasse entarteter gewöhnlicher Differentialgleichungen und das Kollokationsverfahren zu ihrer Lösung. **81b:47056**
 Über selbstadjungierte singuläre gewöhnliche Differentialoperatoren und ein Problem von H. Triebel. **81m:47064**
 Feigin, B. L. (with Fuks, D. B.) Invariant differential operators on the line. (Russian) **81f:47046**
 Filippenko, V. I. Multiplicity of the spectrum of a first-order differential operator in a space of vector-valued functions. (Russian) **81k:47064**
 Freiling, Gerhard See Eberhard, Walter, **81g:47051**
 Fuks, D. B. See Feigin, B. L., **81f:47046**
 Ganyun, M. G. Spectral analysis of a class of second-order nonselfadjoint differential operators. (Russian) **81c:47048**
 Gensies, F. (with Pittner, L.) On the Friedrichs extension of ordinary differential operators with strongly singular potentials. **81j:47035**
 Gurevič, D. I. Generalized shift operators with a right infinitesimal Sturm-Liouville operator. (Russian) **81b:47036**
 Hughes, Rhonda J. (with Segal, Irving E.) Singular perturbations in the interaction representation. **81m:47065**
 Il'in, V. A. Approximation of functions by bi-orthogonal series in the eigen- and associated functions of differential operators. (Russian) **81i:47047**
 (with Joó, István) Estimation of the difference of partial sums of expansions corresponding to two arbitrary nonnegative selfadjoint extensions of two operators of Sturm-Liouville type, for an absolutely continuous function. (Russian) **81i:47050**
 Itatsu, S. (with Kaneta, Hitoshi) Spectral properties of first order ordinary differential operators with short range potentials. **81k:47065**
 Joó, István See Il'in, V. A., **81i:47050**
 Kaneta, Hitoshi See Itatsu, S., **81k:47065**
 Kasymov, E. A. Sufficient condition for essential selfadjointness of a differential operator. (Russian. Kazakh summary) **81m:47066**
 Krichever, I. M. Commutative rings of ordinary linear differential operators. (Russian) **81d:47031**
 Maksimov, F. G. (with Paševa, É. É.) A multiple expansion in eigenfunctions. (Russian) **81g:47052**
 Mamedov, K. S. A theorem on the multiple completeness of eigen- and associated vector functions of polynomial and differential-operator pencils. (Russian) **81m:47067**

- Mitščenka, V. O. Expansion in eigenfunctions of a symmetric abstract elliptic differential operator. (Russian) **81k:47066**
- Mishura, T. V. Finite-zone Dirac operators. (Russian) **81j:47036**
- Otelbaev, M. Estimates of S -numbers and conditions for completeness of the system of root vectors of a nonselfadjoint Sturm-Liouville operator. (Russian) **81i:47051**
- Palaeva, E. E. See Maksudov, F. G., **81j:47052**
- Pittner, L. See Gensztys, F., **81j:47035**
- Segal, Irving E. See Hughes, Rhonda J., **81m:47065**
- Silbermann, Bernd. See Elchner, Johannes, **81h:47056**
- Siljarsčuk, V. E. Invertibility of differential operators in the space of infinitely differentiable functions on the line. (Russian) **81h:47057**
- Sokolov, V. V. Birationally isomorphic commutative rings of differential operators. (Russian) **81f:47048**

secondary classifications:

- Amangil'din, T. G. See Murtazin, H. H., **(81h:34016)**
- Appye, O. D. (with Otelbaev, M.) The spectrum of a degenerate operator. (Russian) **(81h:34013)**
- Bagdasarian, L. A. See Simonjan, S. G., **(81c:34016)**
- Berz, Edgar. Differentialoperatoren, Jean Funktionen. **(81g:34015)**
- Bioinskaja, S. K. The basis property for the system of eigen- and associated functions of a nonselfadjoint differential operator. (Russian) **(81g:34027)**
- Cahen, M. (with Gutt, S.; De Wilde, Marc) Local cohomology of the algebra of C^∞ functions on a connected manifold. **(81j:58046)**
- Chudnovsky, David V. Simplified Schlesinger's systems. **(81d:34004)**
- Coddington, Earl A. (with de Snoo, Hendrik S. V.) Differential subspaces associated with pairs of ordinary differential expressions. **(81a:34021)**
- Descoux, Jean (with Geymonat, Giuseppe) Sur le spectre essentiel d'un opérateur relatif à la stabilité d'un plasma en géométrie toroidale. (English summary) **(81e:76087)**
- De Wilde, Marc. See Cahen, M.; et al., **(81j:58046)**
- Ditkin, V. V. Approximate computation of eigenvalues with a parameter in the boundary conditions. (Russian) **(81m:65143)**
- Dubrovskii, V. V. See Sadovnikii, V. A., **(81h:47026)**
- Erovenko, V. A. The spectrum of a perturbed periodic fourth-order differential operator. (Russian. English summary) **(81a:34021)**
- Everitt, W. N. (with Zettl, A.) Generalized symmetric ordinary differential expressions. I. The general theory. **(81a:34022)**
- Fränkel, L. E. A numerical sequence and a family of polynomials arising from a question of completeness. **(81h:05010)**
- Geymonat, Giuseppe. See Descoux, Jean, **(81e:76087)**
- Gutt, S. See Cahen, M.; et al., **(81j:58046)**
- Halilova, R. Z. Regularization of the trace of a boundary value problem. (Russian) **(81i:34017)**
- Hill, James M. (with Nilsen, R. V.) Mutually conjugate solutions of formally selfadjoint differential equations. **(81a:34024)**
- Hinton, Don B. (with Lewis, Roger T.) Singular differential operators with spectra discrete and bounded below. **(81a:34025)**
- Jóó, István (with Lazetić, Nebojša) Derivatives of partial sums of spectral decompositions corresponding to nonnegative selfadjoint extensions of operators of the Sturm-Liouville type. (Russian) **(81c:34018)**
- Kamimura, Yutaka. On the spectrum of an ordinary differential operator with an r -integrable complex-valued potential. **(81a:34026)**
- Kauffman, Robert M. On the limit- n classification of ordinary differential operators with positive coefficients. II. **(81j:34026)**
- A spectral decomposition theorem and its application to higher-order nonselfadjoint differential operators in $L_2[a, \infty)$. **(81j:47025)**
- Kamp, David J. On the inverse scattering problem for cubic eigenvalue problems of the class $\psi_{xxx} + 6Q\psi_x + 6R\psi = \lambda\psi$. **(81i:34019)**
- Knowles, Ian (with Race, David) On the point spectra of complex Sturm-Liouville operators. **(81f:34028)**
- Kotubel, A. N. Characteristic functions of symmetric operators and their extensions. (Russian. Armenian and English summaries) **(81h:47017)**
- Kogan, V. I. See Rofe-Beketov, F. S., **(81c:34020)**
- Kostjučenko, A. G. (with Sargjan, I. S.) ★ Распределение собственных значений. (Russian) [Distribution of eigenvalues] **(81j:34034)**
- Kreith, Kurt (with Swanson, Charles A.) Higher order Wirtinger inequalities. **(81c:26013)**
- Lazetić, Nebojša. On the convergence of spectral decompositions corresponding to nonnegative selfadjoint extensions of the Sturm-Liouville operator. (Russian) **(81h:34025)**
- See also Jóó, István, **(81c:34018)**
- Lewis, Roger T. See Hinton, Don B., **(81a:34025)**
- Ljance, V. E. (with Storož, O. G.) Mutual adjointness conditions for certain closed operators in terms of abstract boundary operators. (Russian. English summary) **(81m:47005)**
- Maksudov, F. G. (with Veliev, S. G.) Factorization of the scattering matrix for a system of Dirac equations on the entire axis. (Russian) **(81i:34020)**
- Mihallec, V. A. Spectral asymptotic behavior of boundary value problems for the operator Sturm-Liouville equation. (Russian) **(81j:34037)**
- Milne, Ronald Douglas. ★ Applied functional analysis. **(81j:46001)**
- Mirzoev, G. A. Fourth-order quasiregular differential operator. (Russian) **(81h:34030)**
- Murtazin, H. H. (with Amangil'din, T. G.) Asymptotic behavior of the spectrum of the Sturm-Liouville operator. (Russian) **(81h:34016)**
- Nilsen, R. V. See Hill, James M., **(81a:34024)**
- Otelbaev, M. See Appye, O. D., **(81h:34013)**
- Race, David. On the location of the essential spectra and regularity fields of complex Sturm-Liouville operators. **(81h:34017)**
- See also Knowles, Ian, **(81f:34028)**
- Radševskii, G. V. The completeness of derived chains corresponding to boundary value problems on a finite segment. (Russian) **(81c:34015a)**
- Completeness of derivative chains corresponding to boundary value problems on the semiaxis. (Russian) **(81c:34015b)**
- Ramis, J.-P. Dévissage Gevrey. (English summary) **(81g:34010)**
- Rjabikova, I. N. See Zabreiko, P. P., **(81i:46047)**
- Robbs, Philippe. Factorisation d'un opérateur différentiel. III. **(81k:14021)**
- Rofe-Beketov, F. S. (with Kogan, V. I.) Deficiency indices for systems with a Nevanlinna weight. (Russian) **(81c:34020)**
- Generalization of the Prüfer transformation and the discrete spectrum in gaps of the continuous spectrum. (Russian) **(81i:34021)**
- Romo, W. J. Asymptotic forms of radial wavefunctions and Jost functions for cutoff potentials. **(81a:34029)**
- Sacker, Robert J. The splitting index for linear differential systems. **(81f:34020)**
- Sadovnikii, V. A. (with Dubrovskii, V. V.) Some properties of operators with a discrete spectrum. (Russian) **(81h:47026)**
- Sargjan, I. S. See Kostjučenko, A. G., **(81j:34034)**
- Simonjan, S. G. (with Bagdasarian, L. A.) Lacunae in the spectrum of a one-dimensional periodic Dirac operator with a potential of infinite smoothness. (Russian. Armenian summary) **(81c:34016)**
- de Snoo, Hendrik S. V. See Coddington, Earl A., **(81a:34021)**
- Storož, O. G. See Ljance, V. E., **(81m:47005)**
- Swanson, Charles A. See Kreith, Kurt, **(81c:26013)**
- Tkačenko, V. A. Spectral expansions in spaces of analytic functionals. (Russian) **(81g:47021)**
- The transformation operator in spaces of entire functions. (Russian) **(81a:34028)**
- Vagabov, A. I. Multiple summability in eigen- and associated functions for nonregular differential bundles. (Russian) **(81m:34027)**
- On the equiconvergence of expansions in trigonometric Fourier series and in principal functions of ordinary differential operators. (Russian) **(81m:34028)**
- Veliev, O. A. The one-dimensional Schrödinger operator with periodic complex-valued potential. (Russian) **(81d:34022)**
- Veliev, S. G. See Maksudov, F. G., **(81i:34020)**
- Zabreiko, P. P. (with Rjabikova, I. N.) On the theory of higher-order derivatives for operators in Banach spaces. (Russian) **(81i:46047)**
- Zettl, A. See Everitt, W. N., **(81a:34022)**

47F05 Partial differential operators [See also 35Pxx, 58Gxx.]

- Allegretto, Walter. Conditions for nondiscreteness of lower spectra. **81g:47053**
- Aziz, A. A. Estimates of differential operators by means of energy integrals. (Russian) (See **81c:32001**)
- Belyi, A. G. A perturbation formula for the propagator of the Schrödinger equation. (Russian) **81a:47049**
- Brézis, Haim. On the Schrödinger operator with singular complex potentials. **81g:47054**
- Daleckiĭ, Ju. L. Selfadjointness and maximal dissipativity of differential operators for functions of an infinite-dimensional argument. (Russian) **81j:47037**
- Evans, Lawrence C. (with Lions, Pierre-Louis) Deux résultats de régularité pour le problème de Belman-Dirichlet. (English summary) **81f:47049**
- Fortunato, Donato. On the index of elliptic partial differential operators in \mathbb{R}^n . (Italian summary) **81b:47058**
- Hogbe-Nlend, Henri. Les espaces de Silva et les opérateurs différentiels. **81j:47038**
- Koleodov, L. V. (with Naumov, V. V.) Interpolation in a class of families of Banach spaces. (Russian) **81j:47039**
- Lascar, Bernard. Une classe d'opérateurs elliptiques du second ordre sur un espace de Hilbert. **81f:47052**
- Leinfelder, Herbert. Wüst's theorem and positively perturbed Schrödinger operators. **81m:47068**
- Lions, Pierre-Louis. See Evans, Lawrence C., **81f:47049**
- Marcus, Moshe (with Mizel, V. J.) A characterization of first order nonlinear partial differential operators on Sobolev spaces. **81j:47040**
- McOwen, Robert C. The behavior of the Laplacian on weighted Sobolev spaces. **81m:47069**
- Mizel, V. J. See Marcus, Moshe, **81j:47040**
- Naumov, V. V. See Koleodov, L. V., **81j:47039**
- Sagralt, Boris. Normale Auflösbarkeit bei linearen partiellen Differentialoperatoren in lokalen gewichteten Sobolevräumen. **81h:47037**
- Shaw, Howard. On semigroups of weakly antilocal operators. **81h:47038**
- Šubin, M. A. Almost periodic elliptic operators. (Russian) (See **80f:35002**)
- Vladimirov, V. S. (with Zarinov, V. V.) Closed forms associated with linear differential operators. (Russian) **81h:47039**
- Weber, Albin. Über das wesentliche Spektrum des gestörten polyharmonischen Operators. **81f:47053**
- Zarinov, V. V. See Vladimirov, V. S., **81h:47039**

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- Berezanskii, Ju. M. ★ Самосопряженные операторы в пространствах функций бесконечного числа переменных. (Russian) [Selfadjoint operators in spaces of functions of an infinite number of variables] **(81h:47035)**
- (with Samoilenko, V. G.) Selfadjointness of differential operators with finite and infinite number of variables. (Russian. English summary) **(81a:35095)**
- Berthier, Anne-Marie. Sur le spectre ponctuel de l'opérateur de Schrödinger. (English summary) **(81a:35072)**
- Crandall, Michael G. (with Pazy, A.; Tartar, Luc) Remarks on generators of analytic semigroups. **(81g:47043)**
- Davies, E. B. Classical approximations to Gibbs states. **(81c:82007)**
- Derrid, M. Inégalités a priori et estimation sous-elliptique pour ∂ dans des ouverts nonpseudoconvexes. **(81j:32023)**
- Donnelly, Harold. On the essential spectrum of a complete Riemannian manifold. **(81j:58081)**

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- Evans, W. D.** On the J -self-adjointness of Schrödinger operators with a singular complex potential. (81c:35101)
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- Georgescu, Vladimir** On the unique continuation property for Schrödinger Hamiltonians. (81f:47011)
- Giachetti, Daniela** (with Mascolo, Elvira) Spectral properties of a class of quasi-elliptic operators. (Italian. English summary) (81c:35102)
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- Pazy, A.** See Crandall, Michael G.; et al., (81g:47043)
- Perel'muter, M. A.** (with Semenov, Ju. A.) Selfadjointness of elliptic operators with a finite and with an infinite number of variables. (Russian) (81k:35046)
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- Robert, Didier** See Pham Thi Lai, (81c:35098)
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- Levanderšik, S. Z.** Algebras of pseudodifferential operators with discontinuous symbols. (Russian) 81f:47051
- Ljshov, L. N.** Homogeneous singular pseudodifferential operators. (Russian) 81g:47056
- Lorenz, Michael** Nichtelliptische Pseudodifferentialoperatoren im \mathbb{R}^n . 81k:47071
- Marchesini, Giovanni** See Casartelli, M.; et al., 81f:47050
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- Meyer, Yves** See Colfman, Ronald R., 81h:47061
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- Milčenko, A. S.** See Biktaev, R. A., 81k:47067
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- Muramatsu, Toshiro** (with Nagase, Michihiro) On sufficient conditions for the boundedness of pseudodifferential operators. 81g:47058
- Nagase, Michihiro** See Muramatsu, Toshiro, 81g:47058
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- Wong, M. W. Spectra of pseudodifferential operators on $L^p(\mathbb{R}^n)$. (Russian) (81a:47052)
 On some exotic pseudodifferential operators. (81b:47045)
 Spectral analysis of strongly Carleman pseudodifferential operators. (81b:47054)

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- Abdullaev, S. K. (with Babaev, A. A.) A singular Cauchy operator along an open contour in weighted Hölder spaces. (Russian. Azerbaijani and English summaries) (81e:45006)
 Boundedness of a multidimensional singular operator in some spaces of continuous functions. (Russian. Azerbaijani and English summaries) (81e:45007)
 Agranovič, M. S. Spectral properties of elliptic pseudodifferential operators on a closed curve. (Russian) (81e:35096)
 Aleksandrov, E. L. (with Kiričenko, B. I.) Characteristic properties of (SC)-operators with kernels depending on the difference of arguments. (Russian) (81c:47032)
 Álvarez Alonso, J. Dolores Some facts about regularizing pseudodifferential operators. (81e:35124)
 (with Calderón, Alberto P.) Functional calculi for pseudodifferential operators. I. (81j:35109)
 Anderson, Stig I. Liftings and $\text{Ext}(X)$ for pseudodifferential operators. (French summary) (81f:46067)
 Andrea, Stephen A. Scattering theory and pseudodifferential operators. (Spanish summary) (81f:47014)
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 Bil'man, B. M. A class of singular two-dimensional integral equations. (Russian. Tajiki summary) (81i:45012)
 Boltjanskii, V. V. A class of operators in Hilbert space. (Russian) (81h:47032)
 Bykadorov, Ju. A. On a differential-integral operator. (Russian) (81m:45015)
 Cahlon, Baruch (with Westreich, David) Complete continuity of integro-differential operators with discontinuous kernels and collectively compact approximations. (81e:45020)
 Calderón, Alberto P. See Álvarez Alonso, J. Dolores. (81j:35109)
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 Clancey, Kevin (with Gohberg, Israel) Localization of singular integral operators. (81c:45027)
 Collin de Verdière, Yves Sur le spectre des opérateurs elliptiques à bicaractéristiques toutes périodiques. (81a:58052)
 Spectre conjoint d'opérateurs pseudo-différentiels qui commutent. I. Le cas non intégrable. (81f:58045)
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 Gohberg, Israel (with Krupnik, N. Ja.) ★Einführung in die Theorie der eindimensionalen singulären Integraloperatoren. (German) [Introduction to the theory of one-dimensional singular integral operators] (81d:45010)
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 Ivastiien, S. D. Composition of parabolic kernels. (Russian) (81a:35048)
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 Pillat, Ulf (with Schulze, Bert-Wolfgang) Elliptische Randwertprobleme für Komplexe von Pseudodifferentialoperatoren. (81k:58064)
 Pliamenskii, B. A. Algebras generated by pseudodifferential operators with isolated singularities of symbols. (Russian) (81f:58035)
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 Sahnovici, L. A. Systems of equations with difference kernels. (Russian) (81a:45008)
 Salsav, V. V. (with Seifullayev, R. K.) On the article: "A singular Cauchy operator along an open curve" [Azerbaijani. Gos. Univ. Učen. Zap. 1977, no. 3, 5-11; MR 81 #17724]. (Russian) (81k:45003)
 Schep, A. R. Generalized Carleman operators. (81d:47023)
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 Soldatov, A. P. On the Noether theory of operators. Wiener imbeddings of B-algebras. (Russian) (81e:46042)
 Spitkovskii, I. M. Some estimates for partial indices of measurable matrix-valued functions. (Russian) (81k:45004)
 Sun, Shun Hua A class of Banach algebras with \ast -subalgebras and its applications. (Chinese) (81b:46074)
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 Uspenskii, S. V. (with Čistjakov, B. N.) Convergence to a polynomial of the solutions of a class of pseudodifferential equations as $|x| \rightarrow \infty$. (Russian) (81i:35168)
 Volevič, L. R. (with Gindikin, S. G.) The Wiener-Hopf equation for smooth and generalized functions in a half-space. (Russian) (81d:46044)
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- Walle, Peter An integral operator connected with the Helmholtz equation. (81d:45001)
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 Zabrejko, P. P. (with Maiorova, N. L.) Solvability of the nonlinear Uryson integral equation. (Russian) (81c:45011)
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47Hxx Nonlinear operators (For global and geometric aspects, see 58-XX, especially 58Cxx.)

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- (Bharucha-Reid, A. T.) See Approximate solution of random equations. (81j:60002)
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47H05 Monotone operators

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 Menou, Ségla Famille mesurable d'opérateurs maximaux monotones. (English summary) 81c:47042
 Noor, Khalida Inayat (with Noor, M. Aslam) A generalization of the Lax-Milgram lemma. 81h:47047
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 Pankov, A. A. Almost periodic solutions of variational evolution inequalities. (Russian) 81c:47064
 Passty, Gregory B. Ergodic convergence to a zero of the sum of monotone operators in Hilbert space. 81c:47054
 Schöneberg, Rainer See Kirk, W. A., 81c:47053
 Werner, Bodo See Glaschoff, Klaus, 81c:47052

secondary classifications:

- Alber, Ja. I. The solution of equations and variational inequalities with maximal monotone operators. (Russian) (81b:47083)
 Bernadou, Michel (with Oden, J. Tinsley) Théorème d'existence pour une classe de problèmes non linéaires de coques peu profondes. (English summary) (81g:73096)
 Blitzer, Leonhard Extension theorems of Hahn-Banach type and monotone operators. (81f:46007)
 Bose, Deb K. (with Brill, Heinz) Nonlinear elliptic variational inequalities. (81c:49006)
 Brill, Heinz See Bose, Deb K., (81c:49006)
 Coppola, Giuseppe A remark on existence and uniqueness in the theory of variational inequalities. (Italian summary) (81c:49007)
 Domarkas, A. On the regularity of solutions of quasilinear elliptic equations with one-sided boundary conditions. (Russian. Lithuanian and English summaries) (81i:35025)
 Dunn, J. C. Iterative construction of fixed points for multivalued operators of the monotone type. (81f:47056)
 Giachetti, Daniela (with Mascolo, Elvira; Schianchi, Rosanna) Higher order nonlinear partial differential equations in unbounded domains of \mathbb{R}^n . (81b:35033)
 Gröger, Konrad Initial value problems for elastoplastic and elastoviscoplastic systems. (81j:73039)
 (with Nečas, Jindřich) On a class of nonlinear initial value problems in Hilbert spaces. (81h:34072)
 Guseinov, A. L. (with Muhtarov, H. Š.) Application of the monotone operator method to a class of integral equations. (Russian. Azerbaijani and English summaries) (81f:45003)
 Joshi, Mohan Measurability of inverses of random operators and existence theorems. (81k:60062)
 Kacar, Josef Stabilization of solutions of abstract parabolic equations. (81k:34047)
 Landes, Rüdiger (with Mustonen, Vesa) On pseudomonotone operators and nonlinear noncoercive variational problems on unbounded domains. (81i:35057)
 Malivert, Christian (with Penot, Jean-Paul; Théra, Michel) Minimisation d'une fonction régulière sur un fermé non régulier et non convexe d'un espace de Hilbert. (English summary) (81c:58019)
 Mascolo, Elvira See Giachetti, Daniela; et al., (81b:35033)
 Mazzeo, Piers A property of monotone operators for problems of vector optimization. (Italian. English summary) (81h:90129)
 McLinden, L. The complementarity problem for maximal monotone multifunctions. (81h:90137)

- Meldan, Reuven Hilbert spaces of functionals associated with nonlinear operators. (81c:60041)
 Mossino, J. Some nonlinear problems involving a free boundary in plasma physics. (81c:35052)
 Muhtarov, H. Š. See Guseinov, A. L., (81f:45003)
 Mustonen, Vesa See Landes, Rüdiger, (81i:35057)
 Nakao, Mitsuhiro (with Narazaki, Takashi) Existence and decay of solutions of some nonlinear parabolic variational inequalities. (81g:35007)
 Nanda, Sribatsa (with Patel, Ujagar) A nonlinear complementarity problem for monotone functions. (81i:90189a)
 (with Nanda, Sudarsan) A nonlinear complementarity problem in mathematical programming in Hilbert space. (81i:90189b)
 Nanda, Sudarsan See Nanda, Sribatsa, (81i:90189b)
 Narazaki, Takashi See Nakao, Mitsuhiro, (81g:35007)
 Nečas, Jindřich See Gröger, Konrad, (81h:34072)
 Noor, Khalida Inayat (with Noor, M. Aslam) Iterative methods for a class of variational inequalities. (81b:47085)
 Noor, M. Aslam See Noor, Khalida Inayat, (81b:47085)
 Oden, J. Tinsley See Bernadou, Michel, (81g:73096)
 Patel, Ujagar See Nanda, Sribatsa, (81i:90189a)
 Penot, Jean-Paul See Malivert, Christian; et al., (81c:58019)
 Ramankutty, P. Kamke's uniqueness theorem. (81i:34001)
 Schianchi, Rosanna See Giachetti, Daniela; et al., (81b:35033)
 Sokolov, N. A. The minimal residual method for equations with monotone operators. (Russian) (81b:47086)
 Théra, Michel See Malivert, Christian; et al., (81c:58019)
 Tiba, Dan General boundary value problems for second order differential equations. (81i:34015)
 Trif, Damjan Sur l'existence des solutions des équations nonlinéaires. (Romanian summary) (81k:47088)

47H06 Accretive operators, dissipative operators, etc.

- Coron, Jean-Michel Image de la somme de deux sous différentiels. (Italian summary) 81a:47053
 Kirk, W. A. On zeros of accretive operators in uniformly convex spaces. (Italian summary) 81c:47061
 Kobayasi, Kazuo (with Miyadera, Isao) Some remarks on nonlinear ergodic theorems in Banach spaces. 81i:47056
 Miyadera, Isao See Kobayasi, Kazuo, 81i:47056
 Ramna, A. G. Nonlinear equations with an unbounded operator. (Russian) 81j:47043
 Reich, Simeon On infinite products of resolvents. (Italian summary) 81d:47033
 An iterative procedure for constructing zeros of accretive sets in Banach spaces. 81b:47045
 (with Torrejón, Ricardo) Zeros of accretive operators. 81k:47075
 Product formulas, nonlinear semigroups, and accretive operators. 81k:47076
 Schöneberg, Rainer A degree theory for semiconcave vectorfields in infinite-dimensional Banach spaces and applications. 81b:47066
 Torrejón, Ricardo See Reich, Simeon, 81k:47075

secondary classifications:

- Kocubei, A. N. Extensions of a positive definite symmetric operator. (Russian. English summary) (81i:47009)
 Okazawa, Noboru Singular perturbations of m -accretive operators. (81g:47035)
 Rjazanceva, I. P. Regularization of equations with accretive operators by the method of successive approximations. (Russian) (81d:65029)
 Yen, Ch'1 Lin Two variational inequalities in Banach spaces. (81d:49010)

47H07 Monotone and positive operators on ordered Banach spaces or other ordered topological vector spaces

- Bahtin, I. A. Conditions for the continuity of the positive spectrum of a concave operator. (Russian) 81h:47048
 Crandall, Michael G. (with Tartar, Luc) Some relations between nonexpansive and order preserving mappings. 81a:47054
 Klimov, V. S. One-dimensional boundary value problems with two solutions. (Russian) 81d:47034
 Kutateladze, S. S. Criteria for extreme operators. (Russian) 81m:47076
 Linke, Ju. E. Sublinear operators defined on a cone of a finite-dimensional space. (Russian) 81d:47035
 Poltjukov, V. P. Solution of certain nonlinear operator equations and their application to integro-differential equations. (Russian) 81b:47067
 Smickh, S. V. Eigenvectors and relative indices of positive operators. (Russian) 81f:47054
 Tartar, Luc See Crandall, Michael G., 81a:47054

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- Altomare, Francesco Théorèmes de convergence de type Korovkin relativement à une application linéaire positive. (Italian summary) (81d:41028)
 Bruck, Ronald E. On the weak asymptotic almost-periodicity of bounded solutions of $u'' \in Au + f$ for monotone A . (81m:34012)
 Busoni, Giorgio (with Frosali, Giovanni) A temperature-dependent nonlinear neutron transport problem. (81a:82065)
 Flüster, Hans-Otto Korovkin-closures of finite sets. (81d:41030)
 Frosali, Giovanni See Busoni, Giorgio, (81a:82065)
 Kutateladze, S. S. The Krein-Mil'man theorem and its converse. (Russian) (81g:46011)

47H09 Nonexpansive mappings, ultimately compact mappings, A -proper mappings, K -set contractions, etc.

- Gillespie, A. A. (with Williams, B. B.) Fixed point theorem for nonexpansive mappings on Banach spaces with uniformly normal structure. **81h:47068**
- Goebel, K. (with Koter, M.) Regularly nonexpansive mappings. **81e:47043** (with Kuczumow, T.) A contribution to the theory of nonexpansive mappings. **81k:47077**
- Hahn, S. Homöomorphieaussagen für k -verdichtende Vektorfelder. **81m:47077**
- Koter, M. See Goebel, K., **81e:47043**
- Kuczumow, T. See Goebel, K., **81k:47077**
- Mahuta, Elisabetta Generalized nonexpansive maps on the real axis: existence and approximation of fixed points. (Italian summary) **81h:47069**
- Makhlouf, M. A. A generalization and new proof of a theorem on the existence of a continuous projection. (Russian) **81f:47055**
- Müller, G. O. On nonlinear α -contractions. **81m:47078**
- Müller, Gisela (with Reinermann, Jochen) Eine Charakterisierung strikt-konvexer Banach-Räume über einen Fixpunktsatz für nichtexpansive Abbildungen. **81j:47044**
- Panja, Chumki (with Samanta, S. K.) On determination of a common fixed point. **81e:47055**
- Pary, A. Remarks on nonlinear ergodic theory in Hilbert space. **81e:47056**
- Ray, William O. The fixed point property and unbounded sets in Hilbert space. **81e:47044**
- Reinermann, Jochen See Müller, Gisela, **81j:47044**
- Samanta, S. K. See Panja, Chumki, **81e:47055**
- Schöneberg, Raimund Matrix-Limitierungen von Picardfolgen nichtexpansiver Abbildungen im Hilbertraum. **81h:47070**
- Singh, Kanahya L. Generalized contractions and sequence of iterates. **81h:47071**
- Williams, B. B. See Gillespie, A. A., **81h:47068**

secondary classifications:

- Achari, J. Fixed point theorems in complete metric spaces. (**81g:54057**)
- Chandler, Eric (with Faulkner, Gary D.) Fixed points in nonconvex domains. (**81k:47078**)
- Faulkner, Gary D. See Chandler, Eric, (**81k:47078**)
- Itoh, Shigeru (with Takahashi, Wataru) The common fixed point theory of singlevalued mappings and multivalued mappings. (**81k:47080**)
- Katkov, M. L. Inversion of the contraction mapping principle for generalized nonexpanding operators. (Russian) (**81f:54017**)
- Kobayasi, Kazuo (with Miyadera, Isao) Some remarks on nonlinear ergodic theorems in Banach spaces. (**81i:47056**)
- Miyadera, Isao See Kobayasi, Kazuo, (**81i:47056**)
- Pascali, Dan Equations with an A -proper sum of operators. (Romanian. English summary) (**81m:47088**)
- Reich, Simeon (with Torregión, Ricardo) Zeros of accretive operators. (**81k:47075**)
- Product formulas, nonlinear semigroups, and accretive operators. (**81k:47076**)
- Rzepecki, Bogdan Remarks on Schauder's fixed point principle and its applications. (Russian summary) (**81h:47073**)
- An extension of Krasnosel'skii's fixed point theorem. (Russian summary) (**81h:47074**)
- Sharma, Ashok K. A generalization of Banach contraction principle to 2-metric spaces. (**81d:54038**)
- Srivastava, Pramila (with Srivastava, S. C.) Fixed point theorems for nonexpansive mappings in a locally convex space. (**81f:47057**)
- Srivastava, S. C. See Srivastava, Pramila, (**81f:47057**)
- Takahashi, Wataru See Itoh, Shigeru, (**81k:47080**)
- Torregión, Ricardo See Reich, Simeon, (**81k:47075**)
- Zhao, Han Bin Existence theorems for fixed points of generalized nonexpansive mappings in a Banach space. (Chinese. English summary) (**81e:47064**)

47H10 Fixed-point theorems [See also 34C29, 54H25, 55M20, 58C30.]

- Bailion, J. B. Quelques aspects de la théorie des points fixes dans les espaces de Banach. I, II. **81d:47036**
- Chandler, Eric (with Faulkner, Gary D.) Fixed points in nonconvex domains. **81k:47078**
- Delmling, Klaus Fixed points of condensing maps. **81e:47057**
- Duna, J. C. Iterative construction of fixed points for multivalued operators of the monotone type. **81f:47056**
- Eisenfeld, Jerome (with Lakshmikantham, V.) Fixed point theorems on closed sets through abstract cones. **81f:47057**
- Faulkner, Gary D. See Chandler, Eric, **81k:47078**
- Finov, A. N. Weakly compact sets and fixed points of nonexpanding mappings in Banach space. (Russian) **81f:47045**
- Gillespie, A. A. (with Williams, B. B.) Some theorems on fixed points in Lipschitz- and Kannan-type mappings. **81e:47045**
- Gregori, Michel, Jr. A fixed point theorem in Banach space. (Italian summary) **81e:47058**
- Ha, Chung Wei Minimax and fixed point theorems. **81f:47058**
- Hadžić, Olga Some fixed point theorems in Banach spaces. (Serbo-Croatian summary) **81e:47059**
- (with Paunić, Đ.) An existence theorem for the system $x = H(x, y)$, $y = K(x, y)$ in probabilistic locally convex spaces. (Serbo-Croatian summary) **81d:47037**
- (with Nikolić-Despotović, Danica) Some fixed point theorems in random normed spaces. **81m:47079**
- A fixed point theorem for multivalued mappings in random normed spaces. **81g:47062**
- Fixed point theorems for multivalued mappings in some classes of topological vector spaces. **81k:47079**
- Itoh, Shigeru (with Takahashi, Wataru) The common fixed point theory of singlevalued

mappings and multivalued mappings. **81k:47080**

- Jain, R. K. A fixed point theorem for orbitally continuous function. **81j:47046**
- Jerofsky, Thomas Über Existenzaussagen für kondensierende Abbildungen. **81h:47040**
- Karlovitz, L. A. Geometric methods in the existence and construction of fixed points of nonexpansive mappings. **81a:47055**
- Kanahara, Shouro Fixed point iterations via linear mappings. **81e:47046**
- Kirk, W. A. (with Morales, Claudio) Fixed point theorems for local strong pseudocontractions. **81a:47056**
- Ko, Hwei Mei (with Tan, Kok Keong) Attractors and a fixed point theorem in locally convex space. **81e:47060**
- Kuhfittig, Peter K. F. The mean-value iteration for set-valued mappings. **81m:47080**
- Lakshmikantham, V. See Eisenfeld, Jerome, **81f:47057**
- Lee, Anthony To Ming Sets with fixed point property for isometric mappings. **81h:47059**
- Lim, Teck Cheong On asymptotic centers and fixed points of nonexpansive mappings. **81k:47081**
- Lin, Tzu Chu A note on a theorem of Ky Fan. **81d:47038**
- Logunov, A. I. A generalization of the Markov-Kakutani fixed point theorem. (Russian) **81k:47082**
- Martelli, Mario Nonrepulsive fixed point theorems and applications to fixed point theory. **81k:47083**
- Maturo, V. E. Theorems on fixed points for multivalent compressions and expansions of a cone. (Russian) **81g:47063**
- Meister, H. Zum Fixpunktverhalten nichtexpansiver Abbildungen. **81i:47060**
- Morales, Claudio See Kirk, W. A., **81a:47056**
- Ni, Lu Qun (with Yao, Jing Qi; Zhao, Han Zhang) Some fixed-point theorems of contractive type mappings. (Chinese. English summary) **81k:47084**
- Nikolić-Despotović, Danica See Hadžić, Olga, **81m:47079**
- Paunić, Đ. See Hadžić, Olga, **81d:47037**
- Penot, Jean-Paul Fixed point theorems without convexity. **81e:47061**
- Rhoades, B. E. A fixed point theorem for some non-self-mappings. **81h:47072**
- Roux, Delfina (with Zanco, Clemente) Quasinonexpansive mappings: strong and weak convergence to a fixed point of the sequence of iterates. (Italian summary) **81h:47061** (with Zanco, Clemente) Kannan maps in normed spaces. (Italian summary) **81i:47062**
- Rzepecki, Bogdan Remarks on Schauder's fixed point principle and its applications. (Russian summary) **81h:47073**
- An extension of Krasnosel'skii's fixed point theorem. (Russian summary) **81h:47074**
- Samanta, S. K. Fixed point theorems for multivalued mappings over a reflexive Banach space. **81m:47081**
- Schöneberg, Raimund Leray-Schauder principles for condensing multivalued mappings in topological linear spaces. **81h:47075**
- Singh, Kanahya L. Sequence of iterates of generalized contractions. **81a:47057**
- Smith, H. L. (with Stuart, C. A.) A uniqueness theorem for fixed points. **81e:47062**
- Srivastava, Pramila (with Srivastava, S. C.) Fixed point theorems for nonexpansive mappings in a locally convex space. **81f:47057**
- Srivastava, S. C. See Srivastava, Pramila, **81f:47057**
- Stuart, C. A. See Smith, H. L., **81e:47062**
- Szűcs, Stanisław Sets of fixed points of nonlinear mappings in function spaces. **81k:47085**
- Takahashi, Wataru See Itoh, Shigeru, **81k:47080**
- Tan, Kok Keong See Ko, Hwei Mei, **81e:47060**
- Williams, B. B. See Gillespie, A. A., **81h:47068**
- Yanagi, Kenjiro On some fixed point theorems for multivalued mappings. **81j:47047**
- Yao, Jing Qi See Ni, Lu Qun; et al., **81k:47084**
- Yeh, Cheh Chih Some fixed point theorems in normed linear spaces. **81e:47063**
- Zanco, C. See Roux, Delfina, **81h:47061** and Roux, Delfina, **81i:47062**
- Zhao, Han Bin Existence theorems for fixed points of generalized nonexpansive mappings in a Banach space. (Chinese. English summary) **81e:47064**
- Zhao, Han Zhang See Ni, Lu Qun; et al., **81k:47084**

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- Achari, J. Some results on fixed point theorem of Zamfirescu. (**81i:54030**)
- Some results on densifying mappings. (**81g:54056**)
- Alexander, James C. Calculating bifurcation invariants as elements of the homotopy of the general linear group. II. (**81f:58016**)
- Allgower, Eugene L. (with Georg, Kurt) Simplicial and continuation methods for approximating fixed points and solutions to systems of equations. (**81d:47040**)
- Borisević, Ju. G. Topology and nonlinear functional analysis. (Russian) (**81f:58013**)
- (with Gliklikh, Ju. E.) Fixed points of mappings of Banach manifolds and some applications. (**81e:58017**)
- Browder, Felix E. Erratum to the paper: "Remarks on fixed point theorems of contractive type" [Nonlinear Anal. 3 (1979), no. 5, 657-661; MR 81a:54046]. (**81k:48081**)
- See also Walter, Wolfgang, (**81k:54080**)
- Bynum, W. L. Normal structure coefficients for Banach spaces. (**81m:46030**)
- Capuzzo Dolcetta, I. (with Matzeu, Michele) Some remarks on quasivariational inequalities and fixed points. (**81a:49006**)
- Cellina, Arrigo (with Sartori, Caterina) The search for fixed points under perturbations. (**81e:58013**)
- Chatterjee, Haimabati Remark on a theorem of Barada Ray. (**81j:54064**)
- Čirić, Ljubomir On mappings with a contractive iterate. (**81f:54027**)
- Gaidarov, D. R. (with Ragimhanov, R. K.) A Hammerstein integral inclusion. (Russian) (**81h:45016**)
- Georg, Kurt See Allgower, Eugene L., (**81d:47040**)
- Ghosh, Kisori Mohan Some types of contractive mappings and fixed points. (**81h:54044**)
- Gillespie, A. A. (with Williams, B. B.) Fixed point theorem for nonexpansive mappings on Banach spaces with uniformly normal structure. (**81h:47068**)
- Gliklikh, Ju. E. See Borisević, Ju. G., (**81f:58017**)
- Goebel, K. (with Koter, M.) Regularly nonexpansive mappings. (**81e:47043**)

(with Kuczumow, T.) A contribution to the theory of nonexpansive mappings. (81b:47077)

Gres'ko, E. V. See Kurpel', M. S. (81m:06012)

Hadžić, Olga Fixed point theorems in probabilistic metric and random normed spaces. (81f:54030)

Hegedüs, Miklós (with Szilágyi, Tivadar) Equivalent conditions and a new fixed point theorem in the theory of contractive type mappings. (81g:54061)

Hidrov, Ju. E. The rotation of pseudomonotone vector fields and Euler characteristics. (Russian) (81h:58022)

Khan, Mohd. Saeed Some fixed point theorems in metric and Banach space. (81c:54065)

Kirk, W. A. On zeros of accretive operators in uniformly convex spaces. (Italian summary) (81g:47061)

Koter, M. See Goebel, K. (81c:47043)

Kuczumow, T. See Goebel, K. (81b:47077)

Kurpel', M. S. (with Gres'ko, E. V.) A generalization of A. Tarski's fixed-point theorem. (Russian) (81m:06012)

Lender, Solomon A fixed-point principle for locally expansive multifunctions. (81g:54063)

Maluta, Elisabetta Generalized nonexpansive maps on the real axis: existence and approximation of fixed points. (Italian summary) (81b:47069)

See also Roux, Delfina. (81i:54038)

Matzeu, Michele See Capuzzo Dolcetta, L. (81a:49006)

Miel, George J. Majorizing sequences and error bounds for iterative methods. (81h:65056)

Mitchell, A. Richard (with Smith, Chris) An existence theorem for weak solutions of differential equations in Banach spaces. (81k:34059)

Mitchell, Theodore Invariant means and analytic actions. (81m:43001)

Müller, Gisela (with Reinermann, Jochen) Eine Charakterisierung strikt-konvexer Banach-Räume über einen Fixpunktsatz für nichtexpansive Abbildungen. (81j:47044)

Paljutkin, V. G. A fixed-point theorem for a semigroup of linear transformations. (Russian) (81j:47051)

Panja, Chumki (with Samanta, S. K.) On determination of a common fixed point. (81c:47055)

Popa, Valeriu A common fixed point theorem for a sequence of multifunctions. (Romanian summary) (81j:54076)

Pytkeev, G. N. A case of convergence of the iteration method and its applications in the theory of jets. (Russian. Tajiki summary) (81k:65069)

Ragimhanov, R. K. See Gaidarov, D. R. (81h:45016)

Ray, William O. The fixed point property and unbounded sets in Hilbert space. (81c:47044)

Reich, Simeon (with Torrejón, Ricardo) Zeros of accretive operators. (81k:47075)

Reinermann, Jochen See Müller, Gisela. (81j:47044)

Roux, Delfina (with Maluta, Elisabetta) Contractive Kannan maps in compact spaces. (81i:54038)

Samanta, S. K. See Panja, Chumki. (81c:47055)

Sartori, Caterina See Cellina, Arrigo. (81c:58013)

Savinkov, Ju. A. Existence of solutions for some classes of nonlinear equations with C-compact operators. (Russian) (81h:47054)

Schechter, Martin (with Shapiro, Jack; Snow, Morris) Solution of the nonlinear problem $Au = N(u)$ in a Banach space. (81g:47069)

Schöneberg, Rainerd Matrix-Limitierungen von Picardfolgen nichtexpansiver Abbildungen im Hilbertraum. (81b:47070)

Sehgal, V. M. Some fixed point theorems for set valued directional contraction mappings. (81j:54079)

Shapiro, Jack See Schechter, Martin; et al. (81g:47069)

Shin, Mon Hsiang Fixed points for mappings majorized by real functionals. (81g:54068)

Smith, Chris See Mitchell, A. Richard. (81k:34059)

Snow, Morris See Schechter, Martin; et al. (81g:47069)

Szilágyi, Tivadar See Hegedüs, Miklós. (81g:54061)

Torrejón, Ricardo See Reich, Simeon. (81k:47075)

Walter, Wolfgang Remarks on a paper by F. Browder about contraction: "Remarks on fixed point theorems of contractive type" [Nonlinear Anal. 3 (1979), no. 5, 657-661; MR 81a:54046]. (81k:54080)

Weldmann, Joachim Continuity of the eigenvalues of selfadjoint operators with respect to the strong operator topology. (81j:47019)

Williams, B. B. See Gillespie, A. A. (81b:47068)

47H12 Spectral theory of nonlinear operators

Canavati, A. José A. A theory of numerical range for nonlinear operators. 81a:47058

Schneider, Klaus R. On a class of nonlinear eigenvalue problems with noninvertible linear part. 81b:47076

Svarcman, E. A. Openness and surjectivity of nonlinear operators. (Russian) (See 80g:47002)

secondary classifications:

Mooney, J. W. (with Voss, Heinrich; Werner, Bodo) The dependence of critical parameter bounds on the monotonicity of a Newton sequence. (81c:35049)

Rabinov, D. G. Determination of generalized Jordan chains by a combination of the false perturbation and Steffensen methods. (Russian) (81k:65070)

Voss, Heinrich See Mooney, J. W.; et al. (81c:35049)

Werner, Bodo See Mooney, J. W.; et al. (81c:35049)

Zettler, Eberhard Lectures on Lyusternik-Schnirelman theory for indefinite nonlinear eigenvalue problems and its applications. (81h:58025a)

The Lyusternik-Schnirelman theory for indefinite and not necessarily odd nonlinear operators and its applications. (81h:58025b)

47H15 Equations involving nonlinear operators [See also 58E07 for abstract bifurcation theory.]

Ade, Hans Existenzsätze für schwach nichtlineare Operatorgleichungen und Anwendung auf Randwertaufgaben mit gewöhnlichen Differentialgleichungen. (English summary) 81j:47048

Aizicovici, Sergiu On an abstract Volterra equation. 81m:47082

Aliev, Raïd Musa (with Mamedov, G. K.) Solvability of nonlinear operator equations. (Russian. Azerbaijani and English summaries) 81h:47050

Altman, Mieczysław Existence theorems for nonlinear operator equations without continuity condition. 81f:47058

Bahlla, I. A. (with Nguen Bik Zui) Existence of positive solutions for nonlinear equations depending on a parameter. (Russian) 81m:47083

Beirão da Veiga, Hugo Existence and computation of the first asymptotic bifurcation point for a couple of potential operators that are not differentiable at infinity. (Italian. English summary) 81h:47051

Britov, N. A. A class of equations with homogeneous operators. (Russian) 81g:47064

Bruck, Ronald E. (with Reich, Simeon) A general convergence principle in nonlinear functional analysis. 81j:47049

Cârja, Ovidiu Local controllability of nonlinear evolution equations in Banach spaces. 81m:47084

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Dement'eva, A. M. The method of coarse corrections for equations with completely continuous operators. (Russian) 81m:47085

Dincă, George (with Roşca, Ioan) A variational method for nonlinear operators. 81g:47065

Donati, Flavio (with Matzeu, Michele) On some evolution problems of implicit type. (Italian summary) 81i:47063

Downing, David Nonlinear mapping theory and the continuation of solutions of equations under homotopy. 81f:47059

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Evans, Lawrence C. Application of nonlinear semigroup theory to certain partial differential equations. 81b:47078

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 Hudzik, Henryk (with Musielak, Julian; Urbanski, R.) Interpolation of compact sublinear operators in generalized Orlicz spaces of nonsymmetric type. (81k:46040)
 Kiffe, T. (with Stecher, M.) Properties and applications of the resolvent operator to a Volterra integral equation in Hilbert space. (81h:45029)
 Levinov, V. A. Internal characterizations of some classes of supporting sets. (Russian) (81k:46004)
 Linke, Ju. E. (with Tolstonogov, A. A.) Properties of spaces of sublinear operators. (Russian) (81a:46051)
 Mänz, P. See Borisov, Ju. G.; et al. (81d:58019)
 Mirzahanjan, E. A. On the properties of a class of mappings of subsets of Hilbert space. (Russian. Armenian summary) (81f:58007)
 Mishinov, M. A. A generalization and new proof of a theorem on the existence of a continuous projection. (Russian) (81f:47055)
 Musielak, Julian See Hudzik, Henryk; et al. (81k:46040)
 Nirenberg, Louis The use of topological, functional analytic, and variational methods in nonlinear problems. (81m:58026)
 Nürnberger, Günther Nonexistence of continuous selections of the metric projection and weak Chebyshev systems. (81d:41041)
 Penot, Jean-Paul Inversion à droite d'applications non linéaires. Applications. (English summary) (81m:58017)
 Plastock, R. A. See Berger, M. S. (81d:58011)
 Rjabikova, I. N. See Zahreiko, P. P. (81i:46047)
 Sattlinger, David H. Bifurcation and symmetry breaking in applied mathematics. (81i:58020)
 Stecher, M. See Kiffe, T. (81h:45029)
 Subrahmanyam, P. V. On the convergence of iterates. (81k:40003)
 Svyagin, V. G. See Borisov, Ju. G.; et al. (81d:58019)
 Tolstonogov, A. A. See Linke, Ju. E. (81a:46051)
 Urbanski, R. See Hudzik, Henryk; et al. (81k:46040)
 Vinokurov, V. A. Regularizable functions in topological spaces and inverse problems. (Russian) (81g:65067)
 Zahreiko, P. P. (with Rjabikova, I. N.) On the theory of higher-order derivatives for operators in Banach spaces. (Russian) (81i:46047)

49-XX CALCULUS OF VARIATIONS AND OPTIMAL CONTROL; OPTIMIZATION [See also 34H05, 65Kxx, 90Cxx, 93-XX.]

49-01 Elementary exposition, textbooks

- Alekseev, V. M. (with Tihomirov, V. M.; Fomin, S. V.) ★Оптимальное управление. (Russian) [Optimal control] 81g:49001
 Fomin, S. V. See Alekseev, V. M.; et al. 81g:49001
 Mandl, Petr Foundations of multistage system optimization. (See 80c:90006)
 Miller, Ronald Eugene ★Dynamic optimization and economic applications. 81b:49001
 Tihomirov, V. M. See Alekseev, V. M.; et al. 81g:49001

secondary classifications:

- Junkins, John L. ★An introduction to optimal estimation of dynamical systems. (81j:93001)
 Kartaviev, A. P. (with Rožděstvenskij, B. L.) ★Обыкновенные дифференциальные уравнения и основы вариационного исчисления. (Russian) [Ordinary differential equations and the foundations of the calculus of variations] (81h:34001)
 Lagunov, V. N. ★Введение в дифференциальные игры. (Russian) [Introduction to differential games] (81f:90132)
 Rožděstvenskij, B. L. See Kartaviev, A. P. (81h:34001)
 Wosk, Arthur ★A course of applied functional analysis. (81a:46003)

49-02 Advanced exposition (research surveys, monographs, etc.)

- Černous'ko, F. L. Optimal control of mechanical systems. (Russian) 81e:49001
 Ekeland, Ivar (with Temam, Roger) ★Выпуклый анализ и вариационные проблемы. (Russian) [Convex analysis and variational problems] 81b:49002
 Miranda, Mario Recent progress in the calculus of variations. (Italian) 81h:49001
 Temam, Roger See Ekeland, Ivar. 81b:49002
 Tihomirov, V. M. See Ekeland, Ivar; et al. 81b:49002

secondary classifications:

- Fučík, Svatopluk (with Kufner, Alois) ★Nonlinear differential equations. (81e:35001)
 Kufner, Alois See Fučík, Svatopluk. (81e:35001)
 Rumjancev, V. V. Some variational principles of mechanics. (Russian) (81d:49030)
 Simionescu, Claudia Lidia Optimal control for distributed parameter systems. (81c:49003)
 Tartar, Luc ★Topics in nonlinear analysis. (81b:35001)

49-03 Historical (must also be assigned at least one classification number from Section 01)

- Klitzler, Rolf Eigenwertkriterien der Variationsrechnung. 81f:49001
 Reid, William T. A historical note on the maximum principle. 81h:49002

secondary classifications:

- Baumgärtel, H. (with Obermann, P.) Betrachtungen zu Gauß aus der Sicht der Mathematischen Physik. (81f:01013)
 Fradlin, B. N. See Grigor'jan, A. T. (81m:01032)
 (Gauß, Carl Friedrich) See Baumgärtel, H.; et al. (81f:01013)
 Grigor'jan, A. T. (with Fradlin, B. N.) Über die Entwicklung der Mechanik nichtholonome Systeme in den Arbeiten deutscher Wissenschaftler. (81m:01032)
 Obermann, P. See Baumgärtel, H. (81f:01013)

49-04 Explicit machine computation and programs (not the theory of computation or programming)

49-06 Proceedings, conferences, etc.

- (Cottle, Richard W.) See Variational inequalities and complementarity problems. 81d:49001
 (Giannessi, F.) See Variational inequalities and complementarity problems. 81d:49001
 (Iracki, K.) See Optimization techniques. 81j:49001a and Optimization techniques. 81j:49001b
 (König, Heinz) See Mathematical programming at Oberwolfach. 81k:49001
 (Korte, Bernhard) See Mathematical programming at Oberwolfach. 81k:49001
 (Lions, Jacques-Louis) See Variational inequalities and complementarity problems. 81d:49001
 (Malanowski, K.) See Optimization techniques. 81j:49001a and Optimization techniques. 81j:49001b
 (Pascali, Dan) See Variational inequalities and optimization problems. 81i:49001
 (Ritter, Klaus) See Mathematical programming at Oberwolfach. 81k:49001
 (Walukiewicz, S.) See Optimization techniques. 81j:49001a and Optimization techniques. 81j:49001b
 Complementarity problems ★Variational inequalities and complementarity problems. 81d:49001

Conference:

- Mathematical Programming ★Mathematical programming at Oberwolfach. 81k:49001
 Constanta ★Variational inequalities and optimization problems. 81i:49001
 Erice ★Variational inequalities and complementarity problems. 81d:49001
 IFIP Conference:
 Optimization Techniques ★Optimization techniques. Part 1. 81j:49001a
 ★Optimization techniques. Part 2. 81j:49001b
 Inequalities ★Variational inequalities and complementarity problems. 81d:49001
 Mathematical programming at Oberwolfach ★Mathematical programming at Oberwolfach. 81k:49001
 Oberwolfach ★Mathematical programming at Oberwolfach. 81k:49001
 Optimization problems ★Variational inequalities and optimization problems. 81h:49001
 Optimization techniques ★Optimization techniques. Part 1. 81j:49001a
 ★Optimization techniques. Part 2. 81j:49001b
 Programming ★Mathematical programming at Oberwolfach. 81k:49001
 School:
 Variational Inequalities and Complementarity Problems in Mathematical Physics and Economics ★Variational inequalities and complementarity problems. 81d:49001
 Summer School:
 Variational Inequalities and Optimization Problems ★Variational inequalities and optimization problems. 81i:49001
 Variational inequalities and complementarity problems ★Variational inequalities and complementarity problems. 81d:49001
 Variational inequalities and optimization problems ★Variational inequalities and optimization problems. 81i:49001
 Warsaw ★Optimization techniques. Part 1. 81j:49001a
 ★Optimization techniques. Part 2. 81j:49001b

secondary classifications:

- (Benkő, Istif) See Proceedings: International Symposium on Applications of Mathematics in System Theory. (81j:93006a) and Proceedings: International Symposium on Applications of Mathematics in System Theory. (81j:93006b)

- (Freese, Jens) See *Special topics of applied mathematics*, (81j:46003)
- (Kriens, Jacobus) See *Convex analysis and mathematical economics*, (81j:90001)
- (Leondes, C. T.) See *Control and dynamic systems*, (81j:93002)
- (Pallanschke, Diethard) See *Special topics of applied mathematics*, (81j:46003)
- (Pavlenkov, A. M.) See *Asymptotic methods in systems theory*, (81j:93001)
- (Simionescu, Claudia Lidia) See *Proceedings: International Symposium on Applications of Mathematics in System Theory*, (81j:93006a) and *Proceedings: International Symposium on Applications of Mathematics in System Theory*, (81j:93006b)
- (Trottenberg, Ulrich) See *Special topics of applied mathematics*, (81j:46003)
- (Živogljador, V. P.) See *Optimization and adaptive control in large-scale systems*, (81j:93005)
- Applications of mathematics in system theory** ★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. I.* (81j:93006a)
★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. II.* (81j:93006b)
- Asymptotic methods in systems theory** ★ *Асимптотические методы в теории систем. Вып. 9.* (Russian) [Asymptotic methods in systems theory. No. 9] (81j:93001)
- Beau** ★ *Special topics of applied mathematics*, (81j:46003)
- Brayor** ★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. I.* (81j:93006a)
★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. II.* (81j:93006b)
- Control and dynamic systems** ★ *Control and dynamic systems. Vol. 16.* (81j:93002)
- Convex analysis and mathematical economics** ★ *Convex analysis and mathematical economics*, (81j:90001)
- Dynamic systems** ★ *Control and dynamic systems. Vol. 16.* (81j:93002)
- Functional analysis** ★ *Special topics of applied mathematics*, (81j:46003)
- Mathematical economics** ★ *Convex analysis and mathematical economics*, (81j:90001)
- Numerical analysis** ★ *Special topics of applied mathematics*, (81j:46003)
- Optimization** ★ *Special topics of applied mathematics*, (81j:46003)
- Optimization and adaptive control in large-scale systems** ★ *Оптимизация и адаптивное управление в больших системах.* (Russian) [Optimization and adaptive control in large-scale systems] (81j:93005)
- Proceedings:**
International Symposium on Applications of Mathematics in System Theory
★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. I.* (81j:93006a)
★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. II.* (81j:93006b)
- Seminar:**
Special Topics of Applied Mathematics ★ *Special topics of applied mathematics*, (81j:46003)
- Special topics of applied mathematics** ★ *Special topics of applied mathematics*, (81j:46003)
- Symposium:**
Applications of Mathematics in System Theory ★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. I.* (81j:93006a)
★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. II.* (81j:93006b)
- Convex Analysis and Mathematical Economics** ★ *Convex analysis and mathematical economics*, (81j:90001)
- System theory** ★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. I.* (81j:93006a)
★ *Proceedings of the International Symposium on Applications of Mathematics in System Theory. II.* (81j:93006b)
- Systems theory** ★ *Асимптотические методы в теории систем. Вып. 9.* (Russian) [Asymptotic methods in systems theory. No. 9] (81j:93001)
- Tilburg** ★ *Convex analysis and mathematical economics*, (81j:90001)
- 49AXX Existence theory for optimal solutions**
- 49A05 Free problems in one independent variable**
- Bowman, Robert H.** Primary extensors and the Bolza problem. 81j:49002
- Bradi, Primo** On the free one-dimensional problem of the calculus of variations. (Italian) 81k:49002
- Cinquini, Silvio** On an elementary inequality in the calculus of variations. (Italian) 81m:49001
- Shukhin, T. E.** Unconstrained variational statements for initial and boundary-value problems. (See 80m:73002)
- 49A10 Problems involving ordinary differential equations, optimal control**
- Abul, A. V.** A minimax problem for optimal displacement of a mechanical system. (Russian) 81g:49003
- Alekperov, L. T.** (with Badam, U.) Optimization of the parameters of discontinuous dynamical systems. (Russian) 81g:49004
- Badam, U.** See Alekperov, L. T., 81g:49004
- Bell, D. J.** (with Boissard, M.) Necessary conditions at the junction of singular and nonsingular control subarcs. 81e:49002
- Boismard, M.** See Bell, D. J., 81e:49002
- Fedorenko, R. P.** (with Gorlov, V. M.; Stavrovskii, B. I.) Optimal control problems with complex constraints. (Russian) 81h:49003
- Gorlov, V. M.** See Fedorenko, R. P.; et al., 81h:49003
- Huko, Andrzej** Analysis of numerical methods of determining optimal control for systems with delays. 81m:49002
- Kreuer, Arthur J.** Continuous linear programming and piecewise bilinear systems. 81k:49003
- Nababan, S.** A Filippov-type lemma for functions involving delays and its application to

- time-delayed optimal control problems. 81a:49012
- Stavrovskii, B. I.** See Fedorenko, R. P.; et al., 81h:49003
- Tadumadre, T. A.** Existence of a solution in optimal problems of neutral type. (Russian. Georgian and English summaries) 81g:49005
- secondary classifications:**
- Lee, E. B.** Generalized quadratic optimal controllers for linear hereditary systems. (81g:93035)
- Tallaferrro, Steven D.** On the angular variation of solutions of second order linear systems. (81h:34008)
- Wan, Frederic Y. M.** Constant sustainable consumption rate in optimal growth with exhaustible resources. (81g:90032)
- 49A21 Free problems in two or more independent variables**
- Didenko, V. P.** A variational method for the solution of boundary value problems whose operator is not symmetric. (Russian) 81h:49003
- Ferro, Francesco** Optimization theorems in the n -dimensional calculus of variations. (Italian summary) 81e:49003
- Marcellini, Paolo** (with Sbordone, Carlo) Relaxation of nonconvex variational problems. (Italian summary) 81h:49004
- Pelczewski, Władysław** (with Walczak, Stanisław) Method for determining the nonexistence of common points of the optimal trajectory and state constraints set boundary. (Russian summary) 81d:49002
- Reid, William T.** Ramifications of the fundamental lemma of the calculus of variations. 81g:49006
- Sadybaev, F. Z.** Extremals in variational problems. (Russian) 81e:49001
- Sbordone, Carlo** See Marcellini, Paolo, 81h:49004
- Walczak, Stanisław** See Pelczewski, Władysław, 81d:49002
- secondary classifications:**
- Annin, B. D.** Variational formulations of elastoplastic problems. (Russian) (81d:73030)
- Matel, Ion** Un problème inverse de la théorie de l'élasticité pour une charge optimum d'une barre élastique supportée par un milieu élastique. (81h:73026)
- 49A22 Problems involving partial differential equations, optimal control**
- Ahmed, Nasiruddin** See Teo, K. L., 81c:49004
- Dikii, L. A.** See Gel'fand, I. M., (See 80f:35002)
- Gannov, K. K.** Existence of optimal controls for processes described by a system of hyperbolic equations in the presence of additional constraints. (Russian) 81k:49004
- Gel'fand, I. M.** (with Dikii, L. A.) Variational calculus and the Korteweg-de Vries equations. (Russian) (See 80f:35002)
- Giurgiu, Maria** An existence and uniqueness theorem for a boundary value problem attached to a nonlinear operatorial system. 81c:49002
- Gisli, Laila** Some theoretical problems of controls relative to a control process with distributed parameters. (Italian) 81m:49003
- Goebel, Manfred** On optimal control of the coefficients of elliptic systems. 81e:49004
- Li, Da Qian** Propriétés d'espaces fonctionnels et problèmes de contrôle optimal de systèmes gouvernés par des équations paraboliques. (English summary) 81f:49003
- Comportements limites pour certains problèmes du contrôle optimal de systèmes gouvernés par des équations paraboliques. (English summary) 81m:49004
- Nababan, S.** (with Noussair, Ezzat S.) Existence theorems for optimal control of quasilinear parabolic partial differential equations. 81d:49003
- (with Teo, K. L.) On the existence of optimal controls of the first boundary value problems for parabolic partial delay-differential equations in divergence form. 81d:49004
- Noussair, Ezzat S.** See Nababan, S., 81d:49003
- Portnov, V. R.** Existence theorems in the theory of flexible solids. (Russian) 81j:49002
- Prepelita, Valeriu** Reachability criteria for partial differential dynamical systems. (Romanian. English summary) 81g:49007
- Simionescu, Claudia Lidia** Optimal control for distributed parameter systems. 81c:49003
- Teo, K. L.** (with Ahmed, Nasiruddin) On the optimal controls of a class of systems governed by second order parabolic partial delay-differential equations with first boundary conditions. 81c:49004
- Existence of optimal controls for systems governed by second order linear parabolic partial delay-differential equations with first boundary conditions. 81d:49005
- See also Nababan, S., 81d:49004
- Zaplatini, V. I.** Construction of the density of the Lagrangian function from a given system of second-order partial differential equations. (Russian. English summary) 81a:49002
- Zuharev, S. V.** The maximum principle for a quasihyperbolic equation. (Russian) 81k:49005
- secondary classifications:**
- Ahmed, Nasiruddin** Some comments on: "Optimal control of a class of strongly nonlinear parabolic systems" [J. Math. Anal. Appl. 61 (1977), no. 1, 188-207; MR 58 #30646]. (81h:49004)
- Baldak, D. A.** (with Sorokaty, N. I.) Optimal control of a continual elastic system under the action of a nonconservative load. (Russian. English summary) (81m:73053)
- Brézis, Haim** Some variational problems of the Thomas-Fermi type. (81g:81010)
- D'Anna, Paola** (with Muselli, Elena) An existence theorem for orientor fields, and applications to the free problem of the calculus of variations in infinite dimension. (Italian. English summary) (81f:49004)
- Evans, Lawrence C.** (with Lions, Pierre-Louis) Deux résultats de régularité pour le problème de Bellman-Dirichlet. (English summary) (81f:47049)
- Freese, Jens** Ein Existenzsatz für optimale Steuerungen. (81e:49020)

- Kamenskii, G. A. (with Mytkis, A. D.; Skubachevskii, A. L.) On the minimum of a quadratic functional and on linear boundary value problems of elliptic type with deviating arguments. (Russian) (81k:35044)
- Lions, Pierre-Louis See Evans, Lawrence C., (81f:47049)
- Lomakin, E. V. Uniqueness of solutions of problems in the theory of elasticity in the case of an isotropic polycrystalline body. (81g:73018)
- Muselli, Elena See D'Anna, Paola, (81f:49004)
- Mytkis, A. D. See Kamenskii, G. A.; et al., (81k:35044)
- Nočan, Jindřich An example of a nonsmooth solution of a nonlinear elliptic system with analytic coefficients and a smoothness condition. (Russian) (81m:35057)
- Porru, Giovanni Degenerate elliptic operators of order $2m$ and G -convergence. (Italian. English summary) (81m:35062)
- Raitum, U. Closure in L_2 of the set of solutions of a family of nonlinear elliptic equations. (Russian) (81e:35049)
- Sbordone, Carlo On some convergence problems for quasiconformal mappings. (81m:30021)
- Skubachevskii, A. L. See Kamenskii, G. A.; et al., (81k:35044)
- Sorokatyĭ, N. I. See Baidak, D. A., (81m:73053)

49A27 Problems in abstract spaces

- Ahmed, Nasiruddin Some comments on: "Optimal control of a class of strongly nonlinear parabolic systems" [J. Math. Anal. Appl. 61 (1977), no. 1, 188-207; MR 58 #30646]. 81h:49004
- Alekserov, Z. A. A variational problem in Hilbert space and its application to the study of the Cauchy problem for an infinite string. (Russian) (See 80d:00021)
- Cesari, Lamberto (with Suryanarayana, M. B.) An existence theorem for Pareto problems. 81g:49008
- D'Anna, Paola (with Muselli, Elena) An existence theorem for orientor fields, and applications to the free problem of the calculus of variations in infinite dimension. (Italian. English summary) 81f:49004
- Ekeland, Ivar Relations d'ordre dans les Banach: quelques applications à l'analyse. Nonconvex duality. 81e:49005
- Kusraev, A. G. (with Kutateladze, S. S.) The Rockafellar convolution and the characterization of optimal trajectories. (Russian) 81f:49005
- Kutateladze, S. S. See Kusraev, A. G., 81f:49005
- Levin, V. L. (with Miljutin, A. A.) The problem of the displacement of masses with a discontinuous cost function and the mass formulation of the problem of the duality of convex extremal problems. (Russian) 81g:49009
- Lim, Kim Pin Some problems on existence in convex optimization on infinite-dimensional vector spaces. 81m:49005
- Miljutin, A. A. See Levin, V. L., 81g:49009
- Muselli, Elena See D'Anna, Paola, 81f:49004
- Nagy, Éva V. Regularisierungsmöglichkeiten in der Optimierung von unendlichdimensionalen linearen Systemen. (English and Russian summaries) 81g:49010
- Noailles, Joseph Contrôle distribué et impulsionnel dans les équations d'évolution: formulation d'un problème et existence de solutions. (English summary) 81e:49006
- Pandolfi, Luciano Nonautonomous regulator problem in Hilbert spaces. 81a:49004
- Rockafellar, R. T. Generalized directional derivatives and subgradients of nonconvex functions. 81f:49006
- Rubio, J. E. On optimal control problems in Hilbert spaces: the case of the unbounded controls. 81a:49005
- Suryanarayana, M. B. See Cesari, Lamberto, 81g:49008

secondary classifications:

- Altman, Mieczysław Existence theorems for nonlinear operator equations without continuity condition. (81f:47058)
- Attouch, Hedy (with Picard, Colette) Problèmes variationnels et théorie du potentiel non linéaire. (English summary) (81h:31017)
- Benkő, István Dual optimality criteria in absence of topology. (81f:90079)
- Borwein, J. M. Weak local supportability and applications to approximation. (81h:46016)
- Dinci, George (with Roşca, Ioan) A variational method for nonlinear operators. (81g:47065)
- Jouron, C. On some structural design problems. (81a:73037)
- Kačur, Jozef (with Souček, Jiří) Direct variational methods in nonreflexive spaces. (Russian summary) (81a:49029)
- Lebourg, G. Problèmes d'optimisation dépendant d'un paramètre à valeurs dans un espace de Banach. (81h:90127)
- Lacchetti, R. (with Mignane, F.) Variational perturbations of the minimum effort problem. (81a:93043)
- Mariyama, Toru Integration of correspondences and a variational problem with operator constraint. (81i:46048)
- Matel, Ion Un problème inverse de la théorie de l'élasticité pour une charge optimum d'une barre élastique supportée par un milieu élastique. (81b:73026)
- Menou, Ségha Famille mesurable d'opérateurs maximaux monotones. (English summary) (81e:47042)
- Mignane, F. See Lacchetti, R., (81a:93043)
- Mihlin, S. G. The approximate solution of one-sided variational problems. (Russian) (81g:49015)
- Moreau, Jean-Jacques Application of convex analysis to some problems of dry friction. (81g:73091)
- Noailles, Joseph Contrôle distribué et impulsionnel dans les équations d'évolution. Approximation et applications. (English summary) (81e:49031)
- Noor, Khalida Inayat (with Noor, M. Aslam) A generalization of the Lax-Milgram lemma. (81h:47047)
- Noor, M. Aslam See Noor, Khalida Inayat, (81h:47047)
- Pavel, Nicolae H. (with Vrabie, Ioan I.) Semilinear evolution equations with multivalued right-hand side in Banach spaces. (81a:47060)
- Phan Văn Chư'ong Version paramétrique du théorème de Kreĭn-Mil'man et théorèmes de densité pour les applications multivoques mesurables. (81g:90074)
- Picard, Colette See Attouch, Hedy, (81h:31017)
- Rolewicz, Stefan On upper semicontinuity of families of optimal control and families of supporting functionals. (81f:49014)
- Roşca, Ioan See Dinci, George, (81g:47065)
- Souček, Jiří See Kačur, Jozef, (81a:49029)
- Temam, Roger Mathematical problems in plasticity theory. (81k:49009)
- Tran Cao Nguyen A characterization of some weak semicontinuity of integral functionals. (81f:49016)
- Vrabie, Ioan I. See Pavel, Nicolae H., (81a:47060)

49A29 Variational inequalities

- Bakuninskii, A. B. Some methods for solving systems of monotone variational inequalities. (Russian) 81f:49007
- Some results in approximate methods for variational inequalities and systems of variational inequalities with applications. 81m:49006
- Bensoussan, A. On the semigroup formulation of variational inequalities and quasivariational inequalities. 81e:49005
- Birol, Marco A Hölder-continuity result for the solution of certain quasivariational inequalities. (Italian. English summary) 81f:49002
- Régularité de la solution de certains systèmes elliptiques d'inéquations variationnelles avec obstacles. (English summary) 81g:49011
- Bose, Deb K. (with Brill, Heinz) Nonlinear elliptic variational inequalities. 81e:49006
- Brill, Heinz See Bose, Deb K., 81e:49006
- Caffarelli, Luis A. (with Friedman, Avner) Regularity of the solution of the quasivariational inequality for the impulse control problem. II. 81e:49007
- Capuzzo Dolcetta, I. (with Matzeu, Michele) Some remarks on quasivariational inequalities and fixed points. 81a:49006
- (with Mosco, Umberto) Implicit complementarity problems and quasivariational inequalities. 81f:49003
- (with Matzeu, Michele) Duality for implicit variational problems and numerical applications. 81m:49007
- Charrier, Pierre Continuité de la solution d'un problème unilatéral elliptique et application. (English summary) 81e:49008
- Coppoletta, Giuseppe A remark on existence and uniqueness in the theory of variational inequalities. (Italian summary) 81e:49007
- Fejőo, R. A. See Raupp, M. A.; et al., 81d:49008
- Friedman, Avner See Caffarelli, Luis A., 81e:49007
- Fusciardi, Alfonso An under-relaxed method for the numerical solution of quasivariational inequalities. (Italian summary) 81g:49012
- (Garguichevich, Graciela) See Glowinski, Roland, 81e:49009
- Glowinski, Roland ★Introduction à la approximation de inéquations variationnelles elliptiques. (Spanish) [Introduction to the approximation of elliptic variational inequalities] 81g:49009
- Joly, Jean-Luc (with Mosco, Umberto) À propos de l'existence et de la régularité des solutions de certaines inéquations quasi-variationnelles. (English summary) 81a:49007
- Kaplan, A. A. An iteration process with regularization for the solution of certain variational inequalities. (Russian) 81h:49006
- Kikuchi, Noboru (with Song, Young Joon) Remarks on relations between penalty and mixed finite element methods for a class of variational inequalities. 81m:49008
- Kinderlehrer, David (with Stampacchia, Guido) ★An introduction to variational inequalities and their applications. 81g:49013
- Langenbach, Arno Bifurcation under nonlinear loading. 81f:49008
- Lapin, A. V. Investigation of a nonstationary nonlinear variational inequality. (Russian) 81j:49003
- Lions, Jacques-Louis The work of G. Stampacchia in variational inequalities. 81k:49006
- Lions, Pierre-Louis An estimate of the Lipschitz norm of solutions of variational inequalities and applications. 81m:49009
- Macer, Aldo See Toscano, Raffaele, (See 81j:68009) and Toscano, Raffaele, (See 81j:68009)
- Marina Borghesani, Maria Erminia Some nonlinear elliptic variational inequalities of second order. (Italian. English summary) 81h:49005
- The convergence of a sequence of nonlinear operators, and its perturbation by variational inequalities. (Italian. English summary) 81e:49010
- Matzeu, Michele (with Vivaldi, Maria Agostina) A dual estimate for the Hamilton-Jacobi function of a continuous and impulsive stochastic control problem. (Italian summary) 81i:49004
- See also Capuzzo Dolcetta, I., 81a:49006 and Capuzzo Dolcetta, I., 81m:49007
- Mercier, B. ★Inéquations variationnelles de la mécanique. (French) [Variational inequalities of mechanics] 81g:49014
- Mihlin, S. G. The approximate solution of one-sided variational problems. (Russian) 81g:49015
- Mosco, Umberto See Joly, Jean-Luc, 81a:49007 and Capuzzo Dolcetta, I., 81i:49003
- Moura, Carlos A. See Raupp, M. A.; et al., 81d:49008
- Nakoulina, O. Inéquation variationnelle et système d'inéquations quasi-variationnelles stationnaire de type elliptique. 81d:49006
- (Niels, Arcadio) See Glowinski, Roland, 81e:49009
- Pankov, A. A. Discrete approximations of convex sets, and convergence of solutions of variational inequalities. (Russian) 81d:49007
- Regularity of solutions of abstract variational inequalities. (Russian) 81k:49007
- Raupp, M. A. (with Fejőo, R. A.; Moura, Carlos A.) An optimization algorithm for the pile driver problem. 81d:49008
- Scarpini, F. Sur une inéquation d'évolution parabolique du type II, associée à un problème d'asservissement thermique. (English summary) 81i:49006
- A numerical approach to the solution of some variational inequalities. 81i:49005
- Song, Young Joon See Kikuchi, Noboru, 81m:49008
- Stampacchia, Guido See Kinderlehrer, David, 81g:49013 and Lions, Jacques-Louis, 81k:49006

- Toscato, Raffaele (with Maceri, Aldo) Preliminary results on the elastic stability of beams under unilateral constraints. (See 81j:68009)
- (with Maceri, Aldo) Preliminary results on the problem of the plate on unilateral elastic boundary support. (See 81j:68009)
- Vivaldi, Maria Agostina See Matzeu, Michele, 81i:49004
- Vrabie, Ioan I. A compactness method for a class of nonlinear variational inequalities of parabolic type. 81m:49010
- Une méthode de compacité pour une classe d'inéquations d'évolution non linéaires. (English summary) 81d:49009
- Yamada, Naoki Estimates on the support of solutions of elliptic variational inequalities in bounded domains. II. 81i:49007
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- Yes, Chi Lin Two variational inequalities in Banach spaces. 81d:49010
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- Stampacchia, Guido See Lions, Jacques-Louis, 81k:49006
- secondary classifications:**
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- Amerio, Luigi Unilateral problems for the vibrating string equation. (81e:35071)
- Antman, Stuart S. (with Brézis, Haim) The existence of orientation-preserving deformations in nonlinear elasticity. (81h:73009)
- Arioli, M. Numerical analysis of a variational inequality connected with the motion of a fluid past an obstacle. (Italian. English summary) (81f:76005)
- Balocchi, Claudio Variational inequalities and free-boundary problems. (81i:35161)
- (with Evans, Lawrence C.; Frank, Léonid S.; Friedman, Avner) Uniqueness for two immiscible fluids in a one-dimensional porous medium. (81h:76050)
- Bernadou, Michel (with Oden, J. Tinsley) Théorème d'existence pour une classe de problèmes non linéaires de coques peu profondes. (English summary) (81h:73096)
- Birol, Marco An estimate on convergence of approximation by iterations of a solution to a quasivariational inequality and some consequences on continuous dependence and Q -convergence. (Italian summary) (81f:49026)
- Bittner, Leonhard Extension theorems of Hahn-Banach type and monotone operators. (81f:46007)
- Bouchitté, Guy Approximations of Galerkin de problèmes convexes du calcul des variations dans les espaces de type Sobolev-Orlicz. (81b:49017)
- Brézis, Haim (with Lieb, Elliott H.) Long range atomic potentials in Thomas-Fermi theory. (81f:81022)
- (with Caffarelli, Luis A.; Friedman, Avner) Reinforcement problems for elliptic equations and variational inequalities. (81m:35040)
- (with Gallouët, Thierry) Nonlinear Schrödinger evolution equations. (81i:35139)
- See also Antman, Stuart S., (81h:73009)
- Caffarelli, Luis A. (with Friedman, Avner) The dam problem with two layers. (81d:35082)
- (with Friedman, Avner) Asymptotic estimates for the dam problem with several layers. (81i:35162)
- Compactness methods in free boundary problems. (81e:35121)
- (with Friedman, Avner) The shape of axisymmetric rotating fluid. (81j:76090)
- See also Brézis, Haim; et al., (81m:35040)
- Capuzzo Dolcetta, I. (with Vivaldi, Maria Agostina) Existence of a regular solution of a quasivariational inequality in an unbounded domain. (81h:35024)
- Cimetière, Alain Un problème de flambement unilatéral en théorie des plaques. (English summary) (81k:73037)
- (Cottle, Richard W.) See Variational inequalities and complementarity problems, (81d:49001)
- Cryer, Colin W. The numerical solution of a degenerate variational inequality. (81c:73024)
- The solution of the axisymmetric elastic-plastic torsion of a shaft using variational inequalities. (81k:73022)
- Cui, Jun Zhi On problems of elastic content with initial gaps. (Chinese. English summary) (81j:73079)
- Damljanian, Alain Sur certaines équations quasi-linéaires de type "divergentielle" d'ordre arbitraire. (81k:35076)
- Une généralisation concernant le problème de Stefan. (81j:80002)
- (with Li, Da Qian) Comportement limite des solutions de certains problèmes mixtes pour des équations paraboliques. (English summary) (81f:35057)
- Domarkas, A. On the regularity of solutions of quasilinear elliptic equations with one-sided boundary conditions. (Russian. Lithuanian and English summaries) (81i:35025)
- Donati, Flavio (with Matzeu, Michele) On some evolution problems of implicit type. (Italian summary) (81f:47063)
- Dost, S. See Tabarrok, B., (81k:73039)
- Elliott, C. M. On a variational inequality formulation of an electrochemical machining moving boundary problem and its approximation by the finite element method. (81f:82010)
- Evans, Lawrence C. (with Knerr, Barry F.) An elastoplastic plane stress problem. (81f:73017)
- See also Balocchi, Claudio; et al., (81h:76050)
- Frank, Léonid S. See Balocchi, Claudio; et al., (81h:76050)
- Friedman, Avner Time dependent free boundary problems. (81g:76097)
- The dam problem with variable permeability. (81k:76072)
- Correction to: "On the free boundary of a quasivariational inequality arising in a problem of quality control" [Trans. Amer. Math. Soc. 246 (1978), 95-110; MR 80f:9306c]. (81h:93119)
- See also Caffarelli, Luis A., (81d:35082); Balocchi, Claudio; et al., (81h:76050); Caffarelli, Luis A., (81i:35162); Caffarelli, Luis A., (81j:76090) and Brézis, Haim; et al., (81m:35040)
- Gagneux, Gérard Déplacements de fluides non miscibles incompressibles dans un cylindre poreux. (English summary) (81j:76079)
- Gallouët, Thierry See Brézis, Haim, (81i:35139)
- (Giannetti, F.) See Variational inequalities and complementarity problems, (81d:49001)
- Glowinski, Roland Finite elements and variational inequalities. (81g:65151)
- Gol'dštejn, R. V. (with Spektor, A. A.) Variational estimates of the solutions of some mixed three-dimensional problems of elasticity theory with unknown boundary. (81d:73095)
- Haraux, Alain Comportement à l'infini pour certains systèmes dissipatifs non linéaires. (English summary) (81k:34056)
- Ishii, Hironori Asymptotic stability of almost periodic solutions of a free boundary problem arising in hydraulics. (81k:35016)
- Jakimov, N. D. Variational properties of some inverse boundary value problems of filtration. (Russian) (81k:76073)
- Janovskii, L. P. A note on the normal solvability of elliptic variational inequalities. (Russian) (81g:47068)
- Jensen, Robert Smoothness of the free boundary in the Stephan problem with supercooled water. (81g:35057)
- Boundary regularity for variational inequalities. (81k:35043)
- Kenmochi, Nobuyuki On nonlinear parabolic variational inequalities with time-dependent constraints. (Japanese) (81h:47052)
- Kikuchi, Noboru Beam bending problems on a Pasternak foundation using reciprocal variational inequalities. (81h:73052)
- Kinderlehrer, David The smoothness of free boundaries governed by elliptic equations and systems. (81i:35163)
- Knerr, Barry F. See Evans, Lawrence C., (81f:73017)
- Krefß, Rainer Free boundary value problems in hydrodynamics. (81k:35165)
- Langlais, Michel Un problème unilatéral dégénéré. (81g:35041)
- Léoné, Françoise Problème d'homogénéisation avec glissement élastique. Méthode de l'énergie. (English summary) (81g:73082)
- Li, Da Qian See Damljanian, Alain, (81i:35057)
- Lieb, Elliott H. See Brézis, Haim, (81i:81022)
- (Lions, Jacques-Louis) See Variational inequalities and complementarity problems, (81d:49001)
- Lions, Pierre-Louis A remark on some elliptic second-order problems. (Italian summary) (81i:35048)
- Ljajko, A. D. (with Pavlova, M. F.) Investigation of an implicit difference scheme for a variational inequality of nonlinear filtration theory. (Russian) (81k:76074)
- Maceri, Aldo See Toscano, Raffaele, (81j:73045) and Toscano, Raffaele, (See 81j:68009)
- Macovei, Dolina Some typical free boundary problems. (81m:35140)
- Marina Borghesani, Maria Ermilina An extension of a theorem of Leray and Lions to unbounded sets. (Italian. English summary) (81c:35048)
- Matzeu, Michele See Donati, Flavio, (81f:47063)
- Maugeri, Antonino On variational inequalities of parabolic type. (Italian. English summary) (81g:35053)
- McLinden, L. The complementarity problem for maximal monotone multifunctions. (81h:90137)
- Mosolino, J. Some nonlinear problems involving a free boundary in plasma physics. (81c:35052)
- Nakao, Mitsuhiro On the existence of bounded solution for nonlinear evolution equation of parabolic type. (81h:34073)
- (with Narazaki, Takashi) Existence and decay of solutions of some nonlinear parabolic variational inequalities. (81g:35007)
- Nakolima, O. Inéquations variationnelles et système d'inéquations quasi variationnelles d'évolution de type parabolique. (81j:35063)
- Narazaki, Takashi See Nakao, Mitsuhiro, (81g:35007)
- Naumann, Joachim On unilateral boundary value problems for the Navier-Stokes equations in two dimensions. (81h:35040)
- Necas, Jindřich (with Trávníček, Luděk) Variational inequalities of elastoplasticity with internal state variables. (81a:73022)
- On the regularity of weak solutions to variational equations and inequalities for nonlinear second order elliptic systems. (81f:35038)
- Noor, Khalida Inayat (with Noor, M. Aslam) Iterative methods for a class of variational inequalities. (81b:47085)
- See also Noor, M. Aslam, (81f:65006)
- Noor, M. Aslam (with Noor, Khalida Inayat) Finite element methods for nonlinear variational inequalities. (81f:65006)
- See also Noor, Khalida Inayat, (81b:47085)
- Oden, J. Tinsley See Bernadou, Michel, (81h:73096)
- Panagiotopoulos, P. D. A variational inequality approach to the stochastic holonomic elastoplastic torsion of cylindrical or prismatic bars. (81g:73092)
- Pankov, A. A. Almost periodic solutions of variational evolution inequalities. (Russian) (81b:47064)
- Passy, Gregory B. Ergodic convergence to a zero of the sum of monotone operators in Hilbert space. (81c:47054)
- Pavlova, M. F. See Ljajko, A. D., (81k:76074)
- Rabus, M. On two variational inequalities arising from a periodic viscoelastic unilateral problem. (81j:73044)
- Sburian, S. F. Constraint strongly monotone operators. (81h:73013)
- Scarpini, F. The numerical approximation of a unilateral parabolic problem with respect to some nonlinear operators. (Italian. English summary) (81h:65046)
- Error estimates for the finite element approximation of some variational inequalities. (81h:65118)
- Schatzman, Michelle Un problème hyperbolique du 2ème ordre avec contrainte unilatérale: la corde vibrante avec obstacle ponctuel. (English summary) (81h:70015)
- Sewell, Michael J. Degenerate duality, catastrophes and saddle functionals. (81e:58020)
- Spektor, A. A. See Gol'dštejn, R. V., (81d:73095)
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- Ting, Tsun Wu The repeated loading-unloading processes of elastic-plastic torsion of solid bars. (81a:73823)
- Torelli, Alessandro Some regularity results for a family of variational inequalities. (81d:35027)
- Toscano, Raffaele (with Maceri, Aldo) A problem of contact through membranes. (Italian. French summary) (81k:73045)
- (with Maceri, Aldo) Preliminary results on the problem of the elastic plate on one-sided foundation. (See 81j:68009)
- Trivelpiece, L. See Nečas, Jindřich, (81a:73022)
- Vivanti, Maria Agostina See Capuzzo Dolcetta, L. (81h:35024)
- Complementarity problems ★Variational inequalities and complementarity problems. (81d:49001)
- Erice ★Variational inequalities and complementarity problems. (81d:49001)
- Inequalities ★Variational inequalities and complementarity problems. (81d:49001)
- School:

Variational Inequalities and Complementarity Problems in Mathematical Physics and Economics ★Variational inequalities and complementarity problems. (81d:49001)

Variational inequalities and complementarity problems ★Variational inequalities and complementarity problems. (81d:49001)

49A34 Problems involving functional relations other than differential equations

- Artstein, Zvi Generalized solutions to continuous-time allocation processes. 81g:49016
- Bennett, Maria Luisa An existence theorem for optimal controls of systems defined by Uryson integral equations. (Italian. English summary) 81c:49008
- Murayama, Toru An extension of the Aumann-Perles' variational problem. 81a:49009
- Stavroulakis, P. (with Tzafestas, S. G.) Distributed-parameter observer-based control implementation using finite spatial measurements. 81m:49011
- Tzafestas, S. G. See Stavroulakis, P., 81m:49011

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- Aliev, N. Z. Structure of controllable systems and the variation method in a space of phase states. (Russian) (81a:93013)
- Takekuma, Shin-ichi A sensitivity analysis on optimal economic growth. (81g:90031)

49A36 Optimal solutions belonging to restricted classes (bang-bang controls, etc.)

- Barros, Emmanuel Nicholas (with Jensen, Robert) Optimal control problems with no turning back. 81m:49012
- Cesari, Lamberto (with Suryanarayana, M. B.) Existence theorems for Pareto optimization; multivalued and Banach space valued functionals. 81h:49007
- Chukwu, Ethelbert N. (with Hájek, O.) Disconjugacy and optimal control. 81h:49006
- Daniilov, V. Ja. A time-optimal problem in systems with distributed parameters. (Russian. English summary) 81h:49007
- Francis, Bruce A. The optimal linear-quadratic time-invariant regulator with cheap control. 81f:49009
- Hájek, O. See Chukwu, Ethelbert N., 81h:49006
- Ichikawa, K. See Tamura, K.; et al., 81f:49010
- Jensen, Robert See Barros, Emmanuel Nicholas, 81m:49012
- Kamiya, M. See Tamura, K.; et al., 81f:49010
- Morozov, S. F. (with Petrov, V. V.) Discontinuous solutions of irregular variational problems. (Russian) 81a:49010
- Petrov, V. V. See Morozov, S. F., 81a:49010
- Suryanarayana, M. B. See Cesari, Lamberto, 81h:49007
- Tamura, K. (with Ichikawa, K.; Kamiya, M.) An optimal control problem with design parameter variables. 81f:49010

secondary classifications:

- (Bernhard, P.) See Kaulgud, N. N.; et al., (81d:93047)
- Charrier, Pierre Continuité de la solution d'un problème unilatéral elliptique et application. (English summary) (81e:49008)
- Cruz, Jose B., Jr. See Gardner, B. F., Jr., (81d:93041)
- Gardner, B. F., Jr. (with Cruz, Jose B., Jr.) Lower order control for systems with fast and slow modes. (81d:93041)
- Kaulgud, N. N. (with Sentis, Rémi) Feedback discrétisé pour un problème de contrôle en temps optimal. (English summary) (81d:93047)
- Malek-Zavareh, M. Time-optimal control of a third-order plant. (81d:93043)
- Perelson, Alan S. Applications of optimal control theory to immunology. (81g:92010)
- Rabinowitz, Paul H. Free vibrations for a semilinear wave equation. (81i:35109)
- Schmidt, E. J. P. Georg Boundary control for the heat equation with steady-state targets. (81b:93006a)
- The "bang-bang" principle for the time-optimal problem in boundary control of the heat equation. (81b:93006b)
- Sentis, Rémi See Kaulgud, N. N., (81d:93047)
- Sidorina, T. M. On the question of constructing time-optimal control for certain dynamical systems. (Russian) (81e:93059)
- Tzafestas, S. G. Deadbeat time-optimal control of production-inventory systems. (81c:90034)
- Zackerman, Dvor A diffusion model for the control of a multipurpose reservoir system. (81b:93028)

49A40 Minimax problems

- Bates, Peter W. (with Ekeland, Ivar) A saddle-point theorem. 81h:49008
- Ekeland, Ivar See Bates, Peter W., 81h:49008
- Jóó, István A simple proof for von Neumann's minimax theorem. 81i:49008

- Sivcova, V. K. See Vinogradova, T. K., 81j:49004
- Vinogradova, T. K. (with Sivcova, V. K.) On the solution of minimax problems of control theory. (Russian) 81j:49004

secondary classifications:

- Brézis, Haim (with Coron, Jean-Michel; Nirenberg, Louis) Free vibrations for a nonlinear wave equation and a theorem of P. Rabinowitz. (81k:35013)
- Coron, Jean-Michel See Brézis, Haim; et al., (81k:35013)
- Ekeland, Ivar (with Lasry, Jean-Michel) On the number of periodic trajectories for a Hamiltonian flow on a convex energy surface. (81m:58032)
- Krein, M. I. On the question of finding the approximate minimax. (Russian) (81m:49034)
- Lasry, Jean-Michel See Ekeland, Ivar, (81m:58032)
- Lim, Kim Pin Some problems on existence in convex optimization on infinite-dimensional vector spaces. (81m:49005)
- Nirenberg, Louis See Brézis, Haim; et al., (81k:35013)
- Rabinowitz, Paul H. On subharmonic solutions of Hamiltonian systems. (81k:34032)

49A45 Game theory; pursuit and evasion [See also 90Dxx.]

secondary classifications:

- Bar-Ness, Y. (with Feinstein, J.) Design of optimal tracking discrete control system. (81k:93043)
- Cruz, Jose B., Jr. See Papavasiliopoulos, George P., (81i:90223)
- Feinstein, J. See Bar-Ness, Y., (81k:93043)
- Galt, Jason Stability in the gaming equation. (81g:90107)
- Krasovskii, N. N. Game-theoretical optimization of differential systems. (81m:90114)
- Papavasiliopoulos, George P. (with Cruz, Jose B., Jr.) Nonclassical control problems and Stackelberg games. (81i:90223)

49A50 Topology of solutions, weak and strong minima, semicontinuity, convexity, orientor fields

- Afanasyev, M. M. On the theory of regular optimal control problems. (Russian) 81c:49011
- Aubert, Gilles (with Tahraoui, Rabah) Sur la minimisation d'une fonctionnelle non convexe, non différentiable en dimension 1. (Italian summary) 81g:49017
- Dmitriev, M. G. See Vasil'eva, A. B., 81b:49008
- Ekeland, Ivar Problèmes variationnels non convexes. 81f:49011
- Ferro, Francesco Variational functionals defined on spaces of BV functions and their dependence on boundary data. 81f:49012
- Grigor'eva, O. E. Existence of a minimizing general solution in a problem with a small parameter. (Russian. English summary) 81g:49018
- Kloeden, Peter E. General control systems. 81f:49013
- Marcellini, Paolo (with Shordone, Carlo) Semicontinuity problems in the calculus of variations. 81d:49011
- Rolewicz, Stefan On upper semicontinuity of families of optimal control and families of supporting functionals. 81f:49014
- Shordone, Carlo See Marcellini, Paolo, 81d:49011
- Singer, Ivan Maximization of lower semicontinuous convex functionals on bounded subsets of locally convex spaces. I. Hyperplane theorems. 81d:49012
- Tahraoui, Rabah See Aubert, Gilles, 81g:49017
- Thibault, Lionel Épidifférentiels de fonctions vectorielles. (English summary) 81f:49015
- Tran Cao Nguyen A characterization of some weak semicontinuity of integral functionals. 81f:49016
- Vasil'eva, A. B. (with Dmitriev, M. G.) Determination of the structure of a generalized solution to a nonlinear problem of optimal control. (Russian) 81b:49008

secondary classifications:

- Attouch, Hedy Familles d'opérateurs maximaux monotones et mesurabilité. (English summary) (81h:47046)
- Bail, J. M. Strict convexity, strong ellipticity, and regularity in the calculus of variations. (81d:35014)
- Caljuk, V. Z. Stability with respect to the first approximation of differential inclusions. (Russian) (81b:34008)
- Clarke, Frank H. Nonsmooth analysis and optimization. (81e:90006)
- Ekeland, Ivar Relations d'ordre dans les Banach: quelques applications à l'analyse. (81h:49005)
- Nonconvex duality. (81c:49005)
- Eremin, I. I. (with Mazurov, V. D.) Automatic control of the parameters of an iterative process for use in mathematical programming. (81j:90077)
- Ferro, Francesco Optimization theorems in the n -dimensional calculus of variations. (Italian summary) (81c:49003)
- Kutateladze, S. S. Linear problems of convex analysis. (Russian) (81f:52003)
- Lebourg, G. Problèmes d'optimisation dépendant d'un paramètre à valeurs dans un espace de Banach. (81h:90127)
- Levakov, A. A. Well-posedness of a class of optimal control problems. (Russian) (81h:49020)
- Lim, Kim Pin Some problems on existence in convex optimization on infinite-dimensional vector spaces. (81m:49005)
- Mazurov, V. D. See Eremin, I. I., (81j:90077)
- Nababan, S. A Filippov-type lemma for functions involving delays and its application to time-delayed optimal control problems. (81a:49012)
- Pandolfi, Luciano Nonautonomous regulator problem in Hilbert spaces. (81a:49004)
- Peraiba, Jean-Claude Caractérisation du sous-différentiel associé à un problème de minimisation convexe à contrainte vectorielle. Application au calcul des variations. (English summary) (81h:90120)
- Tartar, Luc Compensated compactness and applications to partial differential equations. (81m:35014)

- Théra, Michel Calcul ε -sous-différentiel des applications convexes vectorielles. (English summary) (81i:46046)
- Vandeweyer, Renée Stabilité géométrique et régularisation dans les espaces intégraux de type Orlicz à paramètre; critère de compacité de Kolmogorov-Riesz. (81d:46030)
- Zadorozhnyi, V. F. Synthesis of time-optimal controllable dynamic systems. (Russian) (81i:49028)

49A51 Fréchet and Gâteaux differentiability

- Sachs, Ekkehard Differentiability in optimization theory. 81d:49013

secondary classifications:

- Bailion, J. B. Un exemple concernant le comportement asymptotique de la solution du problème $du/dt + \partial\varphi(u) \ni 0$. (81a:47063)
- Cisé, L. Some general conservation formulae in a nonlinear functional theory of particles. (Italian and Russian summaries) (81d:81034)
- Mirică, Stefan A note on the generalized differentiability of mappings. (81k:58009)
- Nashed, M. Z. Generalized inverse mapping theorems and related applications of generalized inverses in nonlinear analysis. (81i:58010)
- Shi, Shu Zhong Remarques sur le gradient généralisé. (English summary) (81j:58018)

49A55 Duality theory

- Jefferson, T. R. (with Scott, C. H.) On geometric duality for state-constrained control problems. 81a:49011
- Scott, C. H. See Jefferson, T. R., 81a:49011
- Teman, Roger Mathematical problems in plasticity theory. 81k:49009
- Toland, John F. On subdifferential calculus and duality in nonconvex optimization. 81m:49013

49A60 Optimal stochastic control [See also 93Exx.]

- Barabanov, A. T. (with Dubovik, S. A.; Kuznetsov, V. M.) Optimal strategies of measurement in stochastic regulators. (Russian) 81j:49005
- Bogachenko, A. V. Some aspects of the variational theory of evolutionary stochastic boundary value problems. (Russian. English summary) 81h:49009
- Dubovik, S. A. See Barabanov, A. T.; et al., 81j:49005
- Kuznetsov, V. M. See Barabanov, A. T.; et al., 81j:49005

secondary classifications:

- (Dehen, Danitzle) See Malliavin, Paul, (81d:60077)
- Eagl, Heinz W. Existence of measurable optima in stochastic nonlinear programming and control. (81a:90137)
- Kohlmann, Michael (with Rishel, Raymond) A variational inequality for a partially observed stopping time problem. (81e:60046)
- Malliavin, Paul *Géométrie différentielle stochastique. (French) [Stochastic differential geometry] (81d:60077)
- (Michel, Dominique) See Malliavin, Paul, (81d:60077)
- Rishel, Raymond See Kohlmann, Michael, (81e:60046)
- Tilhant, Lionel Espérances conditionnelles d'intégrales lipschitziennes et d'intégrales semi-continues inférieurement. (81h:60006)

49A99 None of the above, but in this section

- Cole, R. J. Complementary bivariable principles for linear problems involving nonselfadjoint operators. 81i:49009
- Iwazumi, Tetsuo See Kando, Hisashi; et al., 81m:49014
- Kando, Hisashi (with Iwazumi, Tetsuo; Ukai, Hiroyuki) Synthesis of the singularly perturbed tracking problems with two small parameters. (Japanese. English summary) 81m:49014
- Krivenko, V. A. (with Raspopov, B. M.) An approach to the synthesis of suboptimal control algorithms. (Russian) 81m:49015
- Raspopov, B. M. See Krivenko, V. A., 81m:49015
- Ukai, Hiroyuki See Kando, Hisashi; et al., 81m:49014
- Vaillankas, Z. The convergence in W_2^1 of the approximate variational-difference solution of the Signorini problem. (Russian. Lithuanian and English summaries) 81g:49019

secondary classifications:

- Čyras, Aleksandras Optimization problems in theory of plasticity. (81c:73025)
- Michel, Philippe Programmes mathématiques mixtes. Application au principe du maximum en temps discret dans le cas déterministe et dans le cas stochastique. (English summary) (81i:90157)
- Muntean, Ioan Sur le théorème de convexité de Liapounoff. (Romanian summary) (81m:28010)

49Bxx Necessary conditions and sufficient conditions for optimality

49B05 Free problems in one independent variable

- Baruhin, V. D. (with Malboroda, L. A.) A formalization of extremal problems. (Russian) 81b:49009
- Malboroda, L. A. See Baruhin, V. D., 81b:49009

secondary classifications:

- Clarke, Frank H. The Erdmann condition and Hamiltonian inclusions in optimal control and the calculus of variations. (81f:49002)

49B10 Problems involving ordinary differential equations, optimal control

- Akashi, Hajime See Kitamura, Tadashi, 81e:49014
- Bacciotti, Andrea Caractérisation géométrique de processus optimaux avec contrôle initial. 81m:49016
- Balla, E. A. (with Kirin, N. E.; Seisov, Ju. B.) Estimation of local optimality of trajectories of control systems. (Russian. Turkmen and English summaries) 81e:49010
- Berkanskiĭ, Ja. M. Fusing of singular and nonsingular parts of optimal control. 81f:49017
- Bistricas, V. B. Necessary conditions of optimality for discrete differential optimal control processes. (Russian. Lithuanian and English summaries) 81a:49013
- Brockett, Roger W. Lie theory, functional expansions, and necessary conditions in singular optimal control. 81e:49012
- Clarke, Frank H. The Erdmann condition and Hamiltonian inclusions in optimal control and the calculus of variations. 81f:49002
- Dyhta, V. A. Sufficient conditions for a strong local minimum for singular states. (Russian) 81f:49018
- See also Gurman, V. I., 81h:49010
- Friedland, Shmuel Global principle for free-endpoint problems in optimal control and differential games. 81e:49013
- Grubishanov, S. F. Necessary conditions of optimality for problems with some class of locally nonconvex functionals. (Russian) 81j:49006
- Necessary optimality conditions for problems with a certain class of locally nonconvex functionals. (Russian. English summary) 81c:49009
- Gurman, V. I. (with Dyhta, V. A.) Singular problems of optimal control and the method of multiple maxima. 81h:49010
- Gurov, V. M. Necessary conditions for any extremum for differential inclusions and L. S. Pontryagin's maximum principle. (Russian) 81g:49020
- Itoh, Kamiko Note on the classical variation method at corners in optimal control problems with the state inequality constraint. 81d:49014
- Jakubović, V. A. The principle of the maximum in the problem of optimization of regulators. (Russian. English summary) 81g:49021
- Kirin, N. E. See Balla, E. A.; et al., 81e:49010
- Kitamura, Tadashi (with Akashi, Hajime) On optimal control problems of a system with periodic switchings of the dynamic characteristics. (Japanese. English summary) 81e:49014
- Lewis, Richard M. A supporting hyperplane derivation of the Hamilton-Jacobi-Bellman equation of dynamic programming. 81i:49011
- Definitions of order and junction conditions in singular optimal control problems. 81c:49010
- Łojasiewicz, S., Jr. The sufficiency of maximum principle. 81m:49017
- Mardanov, M. D. Optimal singular controls in systems of ordinary differential equations. (Russian) 81i:49015
- Mas'kin, N. M. Some problems in the theory of optimal processes. (Russian) 81g:49022
- Musicki, Đorđe Généralisation de la méthode de Pfaff-Bilimović pour le formalisme canonique avec les dérivées d'ordre supérieur. (English and Serbo-Croatian summaries) 81h:49011
- Nazarov, B. Basis for the application of dynamic programming to the variational problems of Bolza and Mayer. (Russian) 81i:49011
- Plohor, A. G. Sufficient conditions for solvability of an optimal stabilization problem. (Russian) 81f:49019
- The existence of a continuous function of synthesis in an optimal control problem. (Russian) 81e:49016
- Rusak, I. Bert (with Tan, Soo Tang) Necessary conditions for problems with higher derivative bounded state variables. 81h:49012
- Ryan, E. P. Singular optimal controls for second-order saturating systems. 81e:49017
- Seisov, Ju. B. See Balla, E. A.; et al., 81e:49010
- Skorodinskiĭ, I. T. Investigation of the third variation of a functional on singular controls. (Russian) 81k:49010
- Stadler, W. Preference optimality in multicriteria control and programming problems. 81e:49018
- Sussmann, Hector J. Les semi-groupes sous-analytiques et la régularité des commandes en boucle fermée. 81m:49018
- Taglov, M. G. Sufficient condition for strong extremum in a degenerate problem of the calculus of variations. (Russian. Azerbaijani and English summaries) 81i:49012
- Tan, Soo Tang See Rusak, I. Bert, 81h:49012
- Telemeia, V. R. Optimization of transient distortions. (Russian) 81k:49011
- Tomok, E. L. Some questions of the control of periodic motions. (Russian) 81f:49020
- Wyderka, Zdzisław Some problems of optimal control for linear systems with measures as coefficients. 81m:49019

secondary classifications:

- Belokobila, V. K. Smoothness of the Bellman function for discontinuous systems. (Russian) (81i:49020)
- Bistricas, V. B. Differential form for linear and convex discrete optimal control processes. (81c:93035)
- Chang, Sheldon S. L. Mathematical optimization and economic behavior. (81h:90037)
- Dem'uk, V. S. Sufficient conditions for the existence of a nonempty core for some linear differential n -person games. (Russian. Lithuanian and English summaries) (81f:90130)
- Halmovici, Adolf A control problem related to a Volterra prey-predator system. (81m:92040)
- Lee, E. B. Generalized quadratic optimal controllers for linear hereditary systems. (81g:93035)
- Paikov, A. G. One approach to the solution of certain nonlinear positional differential games. (81f:90135)
- Pieri, G. Variational characterization of the uniqueness of the optimal state for the minimal-time problem. (81g:49032)

Sakawa, Yoshiyuki (with Ukai, Hiroyuki) Optimal shape of an elastic structure. (81i:73053)

Ukai, Hiroyuki See Sakawa, Yoshiyuki, (81i:73053)

49B21 Free problems in two or more independent variables

Acker, Andrew A free boundary optimization problem. II. 81i:49010a
Errata: "A free boundary optimization problem" [SIAM J. Math. Anal. 9 (1978), no. 6, 1179-1191; MR 80d:49031]. 81i:49010b

49B22 Problems involving partial differential equations, optimal control

Alsaugalev, S. A. (with Dženaliev, M. T.) Sufficient optimality conditions for systems with distributed parameters. (Russian) 81i:49013a
Andréev, M. V. (with Mel'nik, V. S.) Control of systems described by quasilinear partial differential equations. (Russian. English summary) 81i:49011
Aščepkov, L. T. (with Vasil'ev, O. V.; Kovalenok, I. L.) A strong optimality condition for singular controls in a Goursat-Darboux system. (Russian) 81i:49012
Barbu, Viorel Necessary conditions for boundary control problems governed by parabolic variational inequalities. 81i:49014
Bamm, R. F. Necessary conditions for distributed-parameter systems with controls of fewer variables than state variables. 81i:49013
Carmichael, D. G. Optimal control in the design of material continua. (Polish and Russian summaries) 81i:49019
Dyhta, V. A. Sufficient conditions for a strong relative minimum for singular extremals. (Russian) 81i:49012
Dženaliev, M. T. Sufficient optimality conditions for systems with distributed parameters. II. (Russian) 81i:49013b

See also Alsaugalev, S. A., 81i:49013a

Freese, Jens Ein Existenzsatz für optimale Steuerungen. 81i:49020
Goebel, Manfred A control problem for equations of elliptic type. (Russian. English summary) 81i:49020

Optimal control of coefficients in linear elliptic equations. II. Necessary optimality conditions. 81i:49015

Kontaratos, D. (with Pinglot, D.) Optimisation en boucle ouverte du fonctionnement d'une colonne d'absorption avec deux points d'action. (English summary) 81i:49021

Kotarski, W. See Kowalewski, A., 81i:49007

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Kowalewski, A. (with Kotarski, W.) Application of Milutin-Dubovickii's method to solving an optimal control problem for hyperbolic systems. (Russian summary) 81i:49007

Krivenkov, Ju. P. Optimality conditions for a quasilinear problem with partial differential equations when phase restrictions are present. (Russian) 81i:49015

Lions, Jacques-Louis Optimal control and new systems of the Navier-Stokes type. 81i:49014

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Mardanov, M. D. Optimality conditions for singular controls. (Russian) 81i:49015

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Mel'nik, V. S. See Andréev, M. V., 81i:49011

Michel, Philippe Necessary conditions for optimality of elliptic systems with positivity constraints on the state. 81i:49012

Pinglot, D. See Kontaratos, D., 81i:49021

Tröltzsch, F. A minimum principle and a generalized bang-bang principle for a distributed optimal control problem with constraints on control and state. 81i:49015

Tutschke, Wolfgang Ein Optimalitätskriterium für Lösungen des Dirichletproblems bei elliptischen Systemen erster Ordnung mit Parameterfunktion. 81i:49013

Vaihman, I. A. (with Litvak, M. L.; Meerov, M. V.) The problem of optimal control for multiply connected systems with distributed parameters. 81i:49022

Vasil'ev, O. V. See Aščepkov, L. T.; et al., 81i:49012

v. Wolfersdorf, L. Necessary optimality conditions for optimal control problems with elliptic systems in the plane. 81i:49023

Zubarev, S. V. Singular optimal controls in systems of hyperbolic equations. (Russian) 81i:49021

Application of asymptotic methods to optimal problems described by quasihyperbolic equations. (Russian) 81i:49016

secondary classifications:

Baničák, N. V. ★Оптимизация форм упругих тел. (Russian) [Optimization of forms of elastic bodies] (81i:73015)

Čyras, Aleksandras Optimization theory in the design of elastic-plastic structures. (See 80b:73049)

Derzko, N. (with Sethi, Suresh P.; Thompson, Gerald L.) Distributed parameter systems approach to the optimal cattle ranching problem. (81g:93056)

Goebel, Manfred On optimal control of the coefficients of elliptic systems. (81i:49004)

Kostyleva, V. D. Optimality conditions in a nonlinear heat distribution control problem. (Russian. English summary) (81i:93045)

Kurkin, L. M. (with Rastorguev, G. I.) Reinforcement of the contour of a hole in a plate. (81i:73091)

Lasiecka, Irena Unified theory for abstract parabolic boundary problems—a semigroup approach. (81m:35077)

LeTallec, P. (with Oden, J. Tinsley) On the existence of hydrostatic pressure in regular finite deformations of incompressible hyperelastic solids. (81g:73057)

Moreau, Jean-Jacques Some calculative properties of linear viscosity. (French summary) (81g:76046)

Oden, J. Tinsley See LeTallec, P., (81g:73057)

Rastorguev, G. I. See Kurkin, L. M., (81g:73091)

Reid, Russell M. See Russell, David L., (81a:76009)

Russell, David L. (with Reid, Russell M.) Water waves and problems of infinite time control. (81a:76009)

Samsonov, A. M. Weierstrass condition in the dynamic problem of optimization of an

elastic plate with a stiffener. (81g:73076)

Sethi, Suresh P. See Derzko, N.; et al., (81g:93056)

Thompson, Gerald L. See Derzko, N.; et al., (81g:93056)

Vasil'eva, V. N. A problem of reconstructing a boundary condition for an equation of elliptic type. (Russian) (81g:35117)

Vigak, V. M. Two-step control of the fastest plate heating. (Russian. English summary) (81i:93032)

Zaplatni, V. I. Construction of the density of the Lagrangian function from a given system of second-order partial differential equations. (Russian. English summary) (81a:49002)

49B27 Problems in abstract spaces

Benker, Hans Quadratische Probleme der optimalen Steuerung. 81i:49013

Beresnev, V. V. Method of nonsmooth penalty functions and the theory of extremum problems in Banach space. 81i:49017

Calgari, Ottavio (with Oliva, Pietro) Nonconvex control problems in Banach spaces. 81i:49003

Doležal, Jaroslav On the sufficient optimality conditions for discrete systems. (See 81j:93007)

Digarkava, D. T. Necessary conditions for optimality in problems with mixed constraints. (Russian. Georgian and English summaries) 81i:49016

Ferro, Francesco The minimum of functionals defined on the space of functions of bounded variation in n dimensions. (Italian. English summary) 81i:49017

Jakubović, V. A. On the abstract theory of optimal control. IV. (Russian) 81i:49013

Kerimov, A. K. Duality in optimal control problems in Hilbert spaces. (Russian. Azerbaijani and English summaries) 81i:49018

Krečev, L. I. Necessary optimality conditions in smoothly convex problems with operator constraints. (Russian) 81i:49006

Kuprava, T. K. See Markozavil, N. I., 81i:49021

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Matveev, A. S. On the abstract theory of optimal control. (Russian. English summary) 81i:49014

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Pohjolainen, Seppo On the discrete-time quadratic optimum control problem in reflexive Banach space. 81i:49024

Rogak, E. D. On some necessary conditions for optimality in a Banach space. 81i:49019

Simionescu, Claudia Lidia Optimal control and general systems. 81i:49025

Staniaszek, S. Optimization in nonlinear systems with right invertible operators. 81i:49026

Studniarski, Marcin Application of the Dubovitskii-Milyutin method to some locally convex extremal problems. (Polish summary) 81i:49022a

Regularly locally convex functions on the Cartesian product of two spaces. (Polish summary) 81i:49022b

secondary classifications:

Alt, Walter Stabilität mengenwertiger Abbildungen mit Anwendungen auf nichtlineare Optimierungsprobleme. (81c:90089)

Antoine, Philippe Conditions pour un minimum local d'une fonction différentiable. (81c:58014)

Hoffmann, Karl-Heinz (with Kornstaedt, Hans-Joachim) Higher-order necessary conditions in abstract mathematical programming. (81c:90090)

Iacob, F. An optimal impulsive control problem associated with linear evolutionary systems in Hilbert spaces. (81i:93032)

Kornstaedt, Hans-Joachim Necessary conditions of higher order for semi-infinite programming. (81c:90079)

See also Hoffmann, Karl-Heinz, (81c:90090)

Levine, P. (with Pomerol, Jean-Charles) Sufficient conditions for Kuhn-Tucker vectors in convex programming. (81a:90155)

Pomerol, Jean-Charles See Levine, P., (81a:90155)

Sachs, Ekkehard Differentiability in optimization theory. (81d:49013)

Strekalovskii, A. S. Optimality conditions in a smooth problem of optimal control in a Banach space. (Russian) (81i:90117)

49B34 Problems involving functional relations other than differential equations

Aliev, F. A. Optimization of discrete systems. (Russian. Azerbaijani and English summaries) 81i:49009

Doležal, Jaroslav On the sufficient optimality conditions for difference inclusions. (Russian summary) 81i:49016

Gabasov, R. F. (with Kirillova, F. M.) On the theory of necessary conditions for optimality in discrete control systems. (Russian) 81i:49010

Gasanov, K. K. (with Mardanov, M. D.; Jusifov, B. M.) On second-order optimality conditions in delay systems. (Russian. Azerbaijani and English summaries) 81i:49027

Jusifov, B. M. See Gasanov, K. K.; et al., 81i:49027

Kirillova, F. M. See Gabasov, R. F., 81i:49010

Mardanov, M. D. See Gasanov, K. K.; et al., 81i:49027

Orlov, A. G. (with Rasina, I. V.) Sufficient optimality conditions for complex systems. (Russian) 81i:49023

Rasina, I. V. See Orlov, A. G., 81i:49023

secondary classifications:

Artstein, Zvi Generalized solutions to continuous-time allocation processes. (81g:49016)

Brunovský, Pavol On the structure of optimal feedback systems. (81d:93020)

Gibson, J. S. The Riccati integral equations for optimal control problems on Hilbert

spaces. (81b:93029)

Gurman, V. I. (with Rasina, I. V.) Sufficient conditions for a relative minimum for discrete systems. (Russian) (81i:90176)

Larin, V. B. Stabilization of the horizontal motion of a two-legged walking apparatus. (Russian) (81j:93046)

Rasina, I. V. See Gurman, V. I., (81i:90176)

Vasil'ev, O. V. Optimality of singular boundary controls in systems with distributed parameters. (Russian) (81g:49029)

Watson, G. Alistair A class of programming problems whose objective function contains a norm. (81b:90123)

49B36 Optimal solutions belonging to restricted classes

Belosapkin, V. K. Smoothness of the Bellman function for discontinuous systems. (Russian) (81i:49020)

Brézis, Haim Nonlinear equations of Thomas Fermi type. (81c:49014)

Dubovickii, A. Ja. Separability and translation of Euler's equations in topological linear spaces. (Russian) (81b:49014)

Gabov, R. F. (with Kirillova, F. M.) On discrete maximum principle. (German and Russian summaries) (81j:49011)

Kirillova, F. M. See Gabov, R. F., (81j:49011)

Lewis, Richard M. (with Vinter, R. B.) New representation theorems for consistent flows. (81i:49017)

Malek-Zavareh, M. Suboptimal control of systems with multiple delays. (81f:49023)

Mamimov, K. B. On the optimality of singular controls in Goursat-Darboux systems with functional constraints of inequality type on the state of the system. (Russian. Azerbaijani and English summaries) (81b:49018)

Subrahmanyam, M. B. On a class of restricted phase problems in the plane. (81f:49024)

Vinter, R. B. See Lewis, Richard M., (81i:49017)

secondary classifications:

Fukata, Satoru (with Mohri, Akira; Takata, Masaru) On the determination of the optimal feedback gains for multivariable linear systems incorporating integral action. (81d:93032)

Gicev, Todor R. (with Vel'ov, V. M.) The effect of inertia of the control device in the time-optimality problem. (Russian) (81g:93033)

Oruhjanov, S. F. Necessary conditions of optimality for problems with some class of locally nonconvex functionals. (Russian) (81j:49006)

Krivenko, V. A. Some particularities of relay control of distributed processes. (Russian) (81m:93041)

Malek-Zavareh, M. Near-optimum design of nonstationary linear systems with state and control delays. (81g:93036)

Mohri, Akira See Fukata, Satoru; et al., (81d:93032)

Sokol, V. A. (with Tynjanskii, N. T.) An approximate method for solving the linear time-optimal problem. (Russian) (81j:49018)

Takata, Masaru See Fukata, Satoru; et al., (81d:93032)

Tynjanskii, N. T. See Sokol, V. A., (81j:49018)

Vel'ov, V. M. See Gicev, Todor R., (81g:93033)

49B40 Minimax problems

Oettli, Karl Werner The method of feasible directions for continuous minimax problems. (81b:49019)

Panin, V. M. Quadratic convergence of a second-order method for a discrete minimax problem. (Russian) (81c:49015)

Safro, V. M. Nonstrict minimum in a minimax problem. (Russian) (81g:49024)

Taburetkin, S. F. Method of successive improvement of the control in a minimax problem. (Russian) (81f:49025)

secondary classifications:

Adali, Sarp Optimal circular ring sector subject to inequality constraints. (French summary) (81i:73013)

Frank, M. J. (with Schweizer, Berthold) On the duality of generalized infimal and supremal convolutions. (Italian summary) (81a:60017)

Haug, Edward J. Optimization of distributed parameter structures with repeated eigenvalues. (81i:73016)

Jain, S. C. See Tawakley, V. B., (81k:76038)

Schweizer, Berthold See Frank, M. J., (81a:60017)

Sivova, V. K. See Vinogradova, T. K., (81j:49004)

Tawakley, V. B. (with Jain, S. C.) Minimum ballistic factor problem of slender axial symmetric missiles. (81k:76038)

Vinogradova, T. K. (with Sivova, V. K.) On the solution of minimax problems of control theory. (Russian) (81j:49004)

Vladimirov, A. A. Necessary conditions for successive maximin in an optimal control problem. (Russian) (81c:49029)

49B50 Sensitivity of optimal solutions in the presence of perturbations

Beisankii, Ja. M. Some properties of the synthesis of linear systems with a degenerate quadratic quality criterion. (Russian) (81m:49028)

Birol, Marco An estimate on convergence of approximation by iterations of a solution to a quasivariational inequality and some consequences on continuous dependence and G-convergence. (Italian summary) (81f:49026)

Chan, W. L. (with Ng, S. K.) Normality and proper performance improvement in periodic control. (81d:49018)

Guseinov, T. G. A singularly perturbed optimal control problem for a system of integro-differential equations. (Russian) (81c:49022)

Kibenko, A. V. The problem of optimal stabilization for quasilinear systems. (Russian) (81a:49014)

Kurina, G. A. A problem of Mayer, a state equation which is a singularly perturbed linear differential equation that is unsolved with respect to the derivative. (Russian) (81g:49025)

Levakov, A. A. Well-posedness of a class of optimal control problems. (Russian) (81b:49020)

Nadifarov, M. A. An optimal control problem for a singularly perturbed nonlinear system with lag. (Russian. Azerbaijani and English summaries) (81j:49012)

Ng, S. K. See Chan, W. L., (81d:49018)

Stasinopoulos, G. I. Continuous dependence of constrained solutions of linear differential inclusions. (81g:49026)

secondary classifications:

Ferro, Francesco The minimum of functionals defined on the space of functions of bounded variation in n dimensions. (Italian. English summary) (81i:49017)

Fukata, Satoru (with Mohri, Akira; Takata, Masaru) On the determination of the optimal feedback gains for multivariable linear systems incorporating integral action. (81d:93032)

Goebel, Manfred On optimal control of the coefficients of elliptic systems. (81c:49004)

Gollan, Bernhard Sensitivity results in optimization with applications to optimal control problems. (81c:93030)

Khalil, Hassan K. (with Medanić, J. V.) Closed-loop Stackelberg strategies for singularly perturbed linear quadratic problems. (81a:93032)

Mahalanabish, A. K. (with Rana, R.) Guaranteed cost solution of optimal control and game problems for uncertain systems. (81m:90116)

Mairer, Helmut (with Zowe, Jochem) First and second order necessary and sufficient optimality conditions for infinite-dimensional programming problems. (81c:90093)

Medanić, J. V. See Khalil, Hassan K., (81a:93032)

Mohri, Akira See Fukata, Satoru; et al., (81d:93032)

Rana, R. See Mahalanabish, A. K., (81m:90116)

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49B60 Optimal stochastic control [See also 93Exx.]

Ahmed, G. (with Morshedi, A. M.) Optimization of noisy functionals. (81i:49021)

Luk'janov, A. T. (with Neronov, V. S.) On optimal control of stochastic systems with distributed parameters. (Russian) (81c:49023)

Morshedi, A. M. See Ahmed, G., (81i:49021)

Neronov, V. S. See Luk'janov, A. T., (81c:49023)

Saksonov, M. T. A class of problems for the control of stochastic differential equations. (Russian. Tajiki summary) (81c:49015)

Necessary optimality conditions of the principle of the maximum type for systems of control of statistical differential equations. (Russian. Tajiki summary) (81d:49019)

secondary classifications:

Ahmed, Nasiruddin Optimal control of stochastic systems. (81d:93071)

Arkin, V. I. (with Evstigneev, I. V.) ★Вероятностные модели управления в экономической динамике. (Russian) [Probabilistic models of control and economic dynamics] (81f:90029)

Elliott, Robert J. (with Kohlmann, Michael) The variational principle and stochastic optimal control. (81j:93064)

Evstigneev, I. V. See Arkin, V. I., (81f:90029)

Fedunov, B. E. Conditions for optimality of control in a statistical problem with phase constraints when there is incomplete information regarding the state of the object. (81d:93073)

Kohlmann, Michael See Elliott, Robert J., (81j:93064)

Moet, Henry Johan Karel Singular perturbation methods in a one-dimensional free boundary problem. (81c:35004)

Zaporožec, A. V. The principle of developed systems and its application for the synthesis of structure and parameters of complex dynamic systems. (81m:93078)

49B99 None of the above, but in this section

Gurman, V. I. (with Rasina, I. V.) Practical applications of conditions sufficient for a strong relative minimum. (81k:49016)

Rasina, I. V. See Gurman, V. I., (81k:49016)

Werner, Bodo On complementary variational principles and hypercircle estimates with applications to obstacle problems. (81c:49016)

secondary classifications:

Aoki, Masano Note on comparative dynamic analysis. (81i:90043)

Rolwicz, Stefan On γ -paraconvex multifunctions. (81a:52013)

Smelov, V. V. A means of forming basis functions for multidimensional variational problems. (Russian) (81g:65086)

49Cxx Carathéodory, Hamilton-Jacobi theories, including dynamic programming [See also 90C39.]

49C05 Free problems and problems involving ordinary differential equations

Binding, Paul Corrections to: "Bounded variation evolution equations" [J. Math. Anal. Appl. 48 (1974), 70-94; MR 50 #10967]. (81c:49024)

Finis, G. S. See Valeev, K. G., (81j:49013)

Gershan, M. D. (with Nagaev, R. F.) The oscillation brachistochrone problem. (81f:49027)

Klotzer, Rolf A-priori-Abschätzungen von Optimalwerten zu Steuerungsproblemen. II. (English and Russian summaries) (81i:49022)

- Nagiev, R. F. See Gerisman, M. D., 81f:49027
 Valiev, K. G. (with Finin, G. S.) Construction of an integral manifold of corresponding solutions of a system of differential equations and the synthesis of an optimal regulator. (Russian. English summary) 81j:49013
 Zavalishin, S. T. A minimax variant of Mayer's problem with momentary constraints on the complete control impulses. (Russian) 81b:49015

secondary classifications:

- Crampin, M. Symmetries and invariants of volume preserving flows. (81k:58059)
 Haas, Violet B. Normality and controllability for the problem of Bolza. (81a:93015)
 Jarić, Jovo P. On conservation laws in thermoelasticity. (Russian and Serbo-Croatian summaries) (81h:73056)
 Kazama, Yoichi (with Savit, Robert) Dual formulation of nonabelian gauge theories. (81g:81052)
 Lewis, Richard M. A supporting hyperplane derivation of the Hamilton-Jacobi-Bellman equation of dynamic programming. (81i:49011)
 Ray, John R. Noether's theorem and exact invariants for time-dependent systems. (81h:70011)
 (with Reid, James L.) Ermakov systems, Noether's theorem and the Sarlet-Bahar method. (81h:70007)
 Reid, James L. See Ray, John R., (81h:70007)
 Savit, Robert See Kazama, Yoichi, (81g:81052)
 Scheinkman, José Alexandre Stability of separable Hamiltonians and investment theory. (81h:90047)

49C10 Free problems and problems involving partial differential equations

- Ekeland, Ivar Periodic solutions of Hamiltonian equations and a theorem of P. Rabinowitz. 81j:49014
 Guill Guerrero, F. (with Martínez Alonso, L.) Generalised variational derivatives in field theory. 81e:49025
 Lutzky, M. Symmetry groups and conserved quantities for the harmonic oscillator. 81f:49028
 Martínez Alonso, L. See Guill Guerrero, F., 81e:49025

secondary classifications:

- Abellanas, L. (with Guill, F.) Intrinsic properties for conservation laws and Lie-Bäcklund invariances of evolution equations. (81m:58038)
 Aubin, Jean-Pierre (with Ekeland, Ivar) Second-order evolution equations associated with convex Hamiltonians. (81j:58026)
 Birolli, Marco A regularity result for the solution to a quasivariational inequality with variable coefficients. (Italian summary) (81k:35042)
 Bieweler, K. Differential geometrical methods in physical problems. (81e:58050)
 Camarena Badia, V. Canonical transformations in the optimization of trajectories. (Spanish. English summary) (81m:70028)
 Chow, Shui Nee (with Mallet-Paret, John) The parameterized obstacle problem. (81j:35106)
 Edelen, Dominic G. B. ★Isovector methods for equations of balance. (81k:58001)
 Ekeland, Ivar (with Lasry, Jean-Michel) On the number of periodic trajectories for a Hamiltonian flow on a convex energy surface. (81m:58032)
 See also Aubin, Jean-Pierre, (81j:58026)
 Guill, F. See Abellanas, L., (81m:58038)
 Krut'kov, S. N. Nonlocal theory of the Hamilton-Jacobi equations. (Russian) (81k:35030)
 Lasry, Jean-Michel See Ekeland, Ivar, (81m:58032)
 Lebedev, D. R. (with Manin, Ju. I.) Benney's long wave equations. II. The Lax representation and conservation laws. (Russian) (81m:58040)
 Mallet-Paret, John See Chow, Shui Nee, (81j:35106)
 Manin, Ju. I. See Lebedev, D. R., (81m:58040)
 Mattel, Giulio On the Poincaré-Cartan integral invariant in magnetofluidynamics. (Italian. English summary) (81j:76094)
 Solov'ev, A. A. On the synthesis of optimal control of a conservative system with a fluid element. (Russian) (81f:93033)
 Stelle, K. S. (with West, P. C.) Algebraic understanding of constraints. (See 81j:83001)
 Sumbatov, A. S. Integrals that are linear with respect to velocity. Generalization of Jacobi's theorem. (Russian) (81j:70016)
 West, P. C. See Stelle, K. S., (See 81j:83001)

49C15 Problems in abstract spaces or involving functional relations other than differential equations

secondary classifications:

- Kolář, Ivan Structure morphisms of prolongation functors. (Russian summary) (81m:58012)
 Kommann-Schwarzbach, Yvette Vector fields and generalized vector fields on fibered manifolds. (81m:58006)

49C20 Dynamic programming method

- Bacot, G. S. Synthesis of optimal control of systems with distributed parameters. (Russian) 81g:49027
 Buzurnjuk, S. N. Approximate solution of a problem of optimal control synthesis. (Russian) 81g:49028
 Fal', A. M. See Ševč'ov, A. G., 81k:49017
 Friedman, Avner (with Lions, Pierre-Louis) The optimal strategy in the control problem associated with the Hamilton-Jacobi-Bellman equation. 81m:49029
 Lions, Pierre-Louis See Friedman, Avner, 81m:49029

- Ševč'ov, A. G. (with Fal', A. M.) A dynamic programming method for complex functionals with bounded oscillation. (Russian) 81k:49017
 Vasil'ev, O. V. Optimality of singular boundary controls in systems with distributed parameters. (Russian) 81g:49029
 Vitok, Vitold Decomposition of the goal function of control and the hierarchy of control tasks in large-scale electric power systems. (See 81j:93007)

secondary classifications:

- Bellman, Richard (with Lee, E. Stanley) Functional equations in dynamic programming. (81e:39002)
 Casti, John L. See Larson, Robert E., (81i:90190)
 Cvetanov, Ilja P. (with Dončev, Asen L.; Georgieva, Katja) Method of optimal synthesis of control distributed processes. (Bulgarian. Russian and English summaries) (81f:90110)
 Dončev, Asen L. See Cvetanov, Ilja P.; et al., (81f:90110)
 El Wakil, S. A. (with Haggag, M. H.) Asymptotic solution to the reflected critical slab. (81e:82035)
 Georgieva, Katja See Cvetanov, Ilja P.; et al., (81f:90110)
 Haggag, M. H. See El Wakil, S. A., (81e:82035)
 Kawabata, K. Investigation of numerical properties of Hovenier's exit function equation for multiple scattering of light. (81d:86012)
 Larson, Robert E. (with Casti, John L.) ★Principles of dynamic programming. Part I. (81i:90190)
 Lee, E. Stanley See Bellman, Richard, (81e:39002)
 Mrugała, F. Relationships among \mathfrak{A} -matrix propagation, amplitude density function and invariant imbedding methods. (81e:81119)
 Nazarov, B. Basis for the application of dynamic programming to the variational problems of Bolza and Mayer. (Russian) (81e:49011)
 Petrov, N. N. Continuity of the Bellman function in degenerate cases. (Russian) (81a:93064)
 Tomskii, G. V. Quasidynamical games. (Russian) (81e:90110)

49C99 None of the above, but in this section

- Evans, Lawrence C. (with Lions, Pierre-Louis) Résolution des équations de Hamilton-Jacobi-Bellman pour des opérateurs uniformément elliptiques. (English summary) 81g:49030
 Lions, Pierre-Louis Un problème de contrôle géométrique et les équations de Hamilton-Jacobi-Bellman. (English summary) 81k:49018
 See also Evans, Lawrence C., 81g:49030
 Rubio, J. E. Solution of nonlinear optimal control problems in Hilbert spaces by means of linear programming techniques. 81f:49029
 Seisov, Ju. B. ★Абсолютный экстремум в теории оптимальных процессов. (Russian) [Absolute extremum in the theory of optimal processes] 81k:49019
 Vujčić, V. A contribution to Pfaff-Bilimović differential forms. (Russian. English and Serbo-Croatian summaries) 81g:49031

secondary classifications:

- Crouhy, Michel G. (with Veyrac, Liliane L.) National economic planning, environmental policy and stochastic capital productivity. (81i:90056)
 Hermann, Robert A geometric variational formalism for the theory of nonlinear waves. (81e:58008)
 Kijowski, Jerzy Symplectic relations and partial differential equations. (Polish) (81i:58002)
 Miller, Ronald Eugene ★Dynamic optimization and economic applications. (81b:49001)
 Veyrac, Liliane L. See Crouhy, Michel G., (81i:90056)

49Dxx Methods of successive approximations [For discrete problems, see 90Cxx; see also 65Kxx.]

secondary classifications:

- Hestenes, Magnus Rudolf ★Conjugate direction methods in optimization. (81i:65055)

49D05 Methods based on necessary conditions

- Barzilič, Ju. V. (with Kolesnik, V. V.) Application of the discrete maximum principle for the synthesis of an algorithm for the control of a technological plant with recycling. (Russian) 81e:49026
 Genev, D. Z. Solution of some linear optimal problems with boundary conditions of a general type. (Russian. Bulgarian and English summaries) 81j:49015
 Kolesnik, V. V. See Barzilič, Ju. V., 81e:49026
 Romanjuk, L. P. Necessary conditions of optimality in a discrete optimal control problem. (Russian) 81k:49020
 Židkov, Ju. N. Slater-optimal controls in optimal processes. (Russian) 81m:49030

secondary classifications:

- Chatto, J. J. Méthode variationnelle pour les problèmes hyperboliques et mixtes du premier ordre. (81k:76047)
 Saltanov, M. V. The analytic mechanics of elastic fibers in the Euler representation. (Russian) (81g:73019)
 Taburetkin, S. F. Method of successive improvement of the control in a minimax problem. (Russian) (81f:49025)
 Žilinskas, Antanas On the use of statistical models of multimodal functions for the construction of the optimization algorithms. (81m:65110)

49D07 Gradient methods

- Allwright, J. C. (with Ibrahim, Noridah) Exploitation of simple models in control-constrained optimization. **81j:49016**
- Badam, U. Computational aspects of a parametric optimization of dynamical systems. (Russian) **81f:49030**
- Cloutier, J. R. See Miele, A.; et al. **81k:49022**
- Craven, B. D. See Teo, K. L. **81f:49031**
- Dem'janov, V. F. See Vasil'ev, L. V. **81h:49016**
- Heisin, V. E. See Katkovnik, V. Ja. **81k:49021**
- Huntley, E. See Turner, P. R. **81h:49022**
- Ibrahim, Noridah See Allwright, J. C. **81j:49016**
- Katkovnik, V. Ja. (with Heisin, V. E.) Universal residual function for solving conditional extremum problems. (Russian) **81k:49021**
- Keys, Paul The solution and sensitivity of a general optimal control problem. **81j:49017**
- Kovics, Margit Continuous analogue of iterative regularization of gradient type. (Russian) **81h:49021**
- Levitin, A. V. A generalization of the property of strong convexity and general theorems on the gradient method for minimization of functionals. (Russian) **81e:49027**
- Miele, A. (with Cloutier, J. R.; Mohanty, B. P.; Wu, A. K.) Sequential conjugate gradient-restoration algorithm for optimal control problems with nondifferential constraints. I, II. **81k:49022**
- Gradient algorithms for the optimization of dynamic systems. (See **81j:93002**)
- See also Wu, A. K. **81m:49031**
- Mohanty, B. P. See Miele, A.; et al. **81k:49022**
- Sokol, V. A. (with Tynjanskii, N. T.) An approximate method for solving the linear time-optimal problem. (Russian) **81j:49018**
- Teo, K. L. (with Craven, B. D.) On a computational algorithm for time-lag optimal control problems with restricted phase coordinates. **81f:49031**
- Turner, P. R. (with Huntley, E.) Self-scaling variable metric methods in Hilbert space with applications to control problems. **81h:49022**
- Tynjanskii, N. T. See Sokol, V. A. **81j:49018**
- Vasil'ev, L. V. (with Dem'janov, V. F.) A method of (ϵ, μ, τ) -generalized gradient descent in the presence of constraints. (Russian. English summary) **81h:49016**
- Wu, A. K. (with Miele, A.) Sequential conjugate gradient-restoration algorithm for optimal control problems with nondifferential constraints and general boundary conditions. I. **81m:49031**
- See also Miele, A.; et al. **81k:49022**

secondary classifications:

- Abaffy, József One class of dual matrix methods. **(81f:90076)**
- Adamenko, G. M. (with Pupeiko, A. T.) The ϵ -approximation gradient for a convex function and some of its properties. (Russian. English summary) **(81h:90125)**
- Bertocchi, M. (with Spedicato, E.) Computational experience with conjugate gradient algorithms. **(81f:90086)**
- Dannev, N. T. Investigation of the properties of certain one-dimensional transformations. (Russian) **(81f:65090)**
- Doležal, Jaroslav Parameter optimization in nonzero-sum differential games. **(81d:90117)**
- Glowinski, Roland (with Mantel, B.; Periaux, J.; Pironneau, Olivier; Poirier, G.) An efficient preconditioned conjugate gradient method applied to nonlinear problems in fluid dynamics via least square formulations. **(81k:76035)**
- Goldfarb, Donald Curvilinear path steeplength algorithms for minimization which use directions of negative curvature. **(81f:90093)**
- Hako, Andrzej Analysis of numerical methods of determining optimal control for systems with delays. **(81m:49002)**
- Jurii, A. D. An optimal problem of Stefan type. (Russian) **(81k:49025)**
- Koscielny, E. (with Krabs, W.) Approximation problems in control theory. (German summary) **(81g:93057)**
- Krabs, W. See Koscielny, E. **(81g:93057)**
- Loose, Douglas P. (with Sandell, Nils R., Jr.) Gradient calculations for linear quadratic fixed-control structure problems. **(81c:93055)**
- Mantel, B. See Glowinski, Roland; et al. **(81k:76035)**
- Periaux, J. See Glowinski, Roland; et al. **(81k:76035)**
- Pironneau, Olivier See Glowinski, Roland; et al. **(81k:76035)**
- Poirier, G. See Glowinski, Roland; et al. **(81k:76035)**
- Pupeiko, A. T. See Adamenko, G. M. **(81h:90125)**
- Sandell, Nils R., Jr. See Loose, Douglas P. **(81c:93055)**
- Sokolov, N. A. The minimal residual method for equations with monotone operators. (Russian) **(81h:47086)**
- Spedicato, E. See Bertocchi, M. **(81f:90086)**

49D10 Methods of steepest descent type

- Awra, Jasbir S. Analysis of optimality criteria and gradient projection methods for optimal structural design. **81i:49023**
- Bartii, M. Ja. (with Stašček, M. G.) A method of solution of extremal problems. (Ukrainian. Russian summary) **81m:49032**
- Botcharov, C. A. Differential gradient methods. **81h:49028**
- Fusco, Nicola One-dimensional Γ -convergence. (Italian. English summary) **81d:49020**
- Ilić, C. A unified approach of the descent methods for minimization of convex functionals. I. General theory. **81d:49021a**
- A unified approach of the descent methods for minimization of convex functionals. II. Steplength algorithms. **81d:49021b**
- Resta, Giovanni See Treccani, Giulio. **81a:49017**
- Stašček, M. G. See Bartii, M. Ja. **81m:49032**
- Treccani, Giulio (with Resta, Giovanni) Convergence of a "steepest descent" technique for the solution of a minimax problem. (Italian. English summary) **81a:49017**

secondary classifications:

- Chen, Y. W. (with Haug, Edward J.) Two-dimensional shape optimal design. **(81g:73089)**
- Dryja, M. Alternating direction Galerkin method for a quasilinear parabolic problem. (Russian) **(81f:65088)**
- Finn, W. D. Lian (with Varoglu, Erol) Finite element solution of the Stefan problem. **(81h:65111)**
- Haug, Edward J. See Chen, Y. W. **(81g:73089)**
- Pankov, A. A. Discrete approximations of convex sets, and convergence of solutions of variational inequalities. (Russian) **(81d:49007)**
- Prikanžikov, V. G. The modified method of steepest descent for calculation of eigenvalues. (Russian) **(81h:65053)**
- Scurpini, F. Error estimates for the finite element approximation of some variational inequalities. **(81h:65118)**
- Varoglu, Erol See Finn, W. D. Lian. **(81h:65111)**
- Zidkov, Ju. N. Slater-optimal controls in optimal processes. (Russian) **(81m:49030)**

49D15 Methods of Newton-Raphson, Galerkin and Ritz types

- Beyer, Klaus Eine Bemerkung zum Ritzschen Verfahren für die Stokesschen Gleichungen. **81k:49023**
- Bouchitté, Guy Approximations de Galerkin de problèmes convexes du calcul des variations dans les espaces de type Sobolev-Orlicz. **81h:49017**
- Donzev, Asen L. A dual Ritz method for solving optimal control problems with equality state constraints. (Polish and Russian summaries) **81c:49017**
- Fujii, Nobuo (with Hirai, Masahide) A finite-dimensional asymptotic observer for a class of distributed parameter systems. **81m:49033**
- Hirai, Masahide See Fujii, Nobuo. **81m:49033**
- Pupprey, V. A. Relative effectiveness of variational principles in the Ritz method. **81h:49023**

secondary classifications:

- Bourgat, J. F. (with Dumay, J. M.; Glowinski, Roland) Large displacement calculations of flexible pipelines by finite element and nonlinear programming methods. **(81k:73047)**
- Chan, W. L. (with Tai, C. H.) Variational approximations in energy space for the regulator problem with time delay. **(81h:93022)**
- Danilin, Ju. M. (with Morar, V. A.) Quasi-Newtonian methods of constrained optimization. **(81d:65030)**
- Darlow, Bruce L. See Wheeler, Mary Fanett. **(81m:76051)**
- Dimitrov, Tch. T. See Ganev, H. G. **(81k:73057)**
- Dumay, J. M. See Bourgat, J. F.; et al. **(81k:73047)**
- Ganev, H. G. (with Dimitrov, Tch. T.) Calculation of arch dams as a shell using IBM-370 computer and curved finite elements. **(81k:73057)**
- Glowinski, Roland See Bourgat, J. F.; et al. **(81k:73047)**
- Hidaka, Koji The oscillations of water in an annular basin of variable depth. **(81j:76009)**
- Kantor, B. Ja. On a certain variational equation of the dynamic theory of plasticity. (Russian. English summary) **(81j:73041)**
- Liskovec, O. A. The principle of smoothing of a functional in the regularization method for extremal problems. (Russian. English summary) **(81h:65062)**
- Morar, V. A. See Danilin, Ju. M. **(81d:65030)**
- Quarteroni, Alfio (with Visintin, A.) On the numerical solution of a nonlinear variational equation related to a filtration problem. (Italian summary) **(81h:76052)**
- Sakawa, Yoshiyuki (with Ukai, Hiroyuki) Optimal shape of an elastic structure. **(81k:73053)**
- Simionescu, Claudia Lidia Optimal control and general systems. **(81m:49025)**
- Smygilevskii, Ju. D. Variational problems of gas dynamics. (Russian) **(81k:78001)**
- Tai, C. H. See Chan, W. L. **(81h:93022)**
- Ukai, Hiroyuki See Sakawa, Yoshiyuki. **(81k:73053)**
- Visintin, A. See Quarteroni, Alfio. **(81h:76052)**
- Wheeler, Mary Fanett (with Darlow, Bruce L.) Interior penalty Galerkin procedures for miscible displacement problems in porous media. **(81m:76051)**

49D20 Methods of relaxation type

- Aiyoshi, Eitaro See Shimizu, Kiyotaka. **81d:49022**
- Kreinin, M. I. On the question of finding the approximate minimax. (Russian) **81m:49034**
- Moore, E. J. See Teo, K. L. **81f:49032**
- Pier, G. Variational characterization of the uniqueness of the optimal state for the minimal-time problem. **81g:49032**
- Shimizu, Kiyotaka (with Aiyoshi, Eitaro) Necessary conditions for min-max problems and algorithms by a relaxation procedure. **81d:49022**
- Teo, K. L. (with Moore, E. J.) Computational methods for a class of time-delayed optimal control problems. **81f:49032**

secondary classifications:

- Bertero, M. (with de Mol, C.; Viano, G. A.) On the regularization of linear inverse problems in Fourier optics. **(81k:78002)**
- Guseinov, T. G. A singularly perturbed optimal control problem for a system of integro-differential equations. (Russian) **(81c:49022)**
- de Mol, C. See Bertero, M.; et al. **(81k:78002)**
- Viano, G. A. See Bertero, M.; et al. **(81k:78002)**

49D25 Finite difference methods

- Allwright, J. C. A lower bound for the solution of the algebraic Riccati equation of optimal control and a geometric convergence rate for the Kleinman algorithm. **81g:49033**

- Cavellier, C. Résolution numérique d'un problème de contrôle optimal d'un couplage des équations de Navier-Stokes et celle de la chaleur. (English summary) **81c:49018**
 Gaponenko, Ju. L. Successive approximation method for solution of nonlinear extremal problems. (Russian) **81k:49024**
 Jurli, A. D. An optimal problem of Stefan type. (Russian) **81k:49025**

secondary classifications:

- Atkatch, R. S. (with Baron, M. L.; Bieniek, M. P.) A finite difference variational method for bending of plates. **(81h:73042)**
 Baron, M. L. See Atkatch, R. S.; et al. **(81h:73042)**
 Bieniek, M. P. See Atkatch, R. S.; et al. **(81h:73042)**
 Klötzler, Rolf A-priori-Abschätzungen von Optimalwerten zu Steuerungsproblemen. II. (English and Russian summaries) **(81i:49022)**
 Lions, Pierre-Louis (with Mercier, B.) Splitting algorithms for the sum of two nonlinear operators. **(81g:47070)**
 Mercier, B. See Lions, Pierre-Louis, **(81g:47070)**
 Pansu, V. M. Quadratic convergence of a second-order method for a discrete minimax problem. (Russian) **(81k:49015)**
 Valaskadne, T. S. On applications of a variational-difference method to the solution of some shell theory problems. **(81h:73047)**

49D27 Decomposition methods

- Andrei, Neculai Decentralization and hierarchy control of large-scale systems. (German and French summaries) **81i:49024**
 Atherton, D. P. See Rao, S. Vittal, **81m:49035**
 Hess, James (with Kagiwada, Harriet; Kalaba, Robert) Direct transformation of variational problems into Cauchy systems. II. Scalar-semiquadratic case. **81a:49018b**
 Kagiwada, Harriet See Hess, James; et al. **81a:49018b**
 Kalaba, Robert See Hess, James; et al. **81a:49018b**
 Mabuchi, Tetsuo See Ohta, Toyomi, **81f:49033**
 Ohta, Toyomi (with Mabuchi, Tetsuo) Sub-optimization for singular control problems based on the decomposition method. **81f:49033**
 Poljak, B. T. On the Bertsekas method for minimization of composite functions. **81a:49019**
 Rao, S. Vittal (with Atherton, D. P.) Near optimal regulators for large scale systems using Routh approximant reduced order models. **81m:49035**

secondary classifications:

- Bourgat, J. F. (with Glowinski, Roland; LeTallec, P.) Decomposition of variational problems and applications in finite elasticity. **(81j:73046)**
 Chirila-Socolescu, Rodica On the existence of classical solutions of exterior semilinear elliptic boundary value problems with application to plane fluid flows. **(81k:35051)**
 Gaigori, V. G. See Pervovskii, A. A., **(81f:90104)**
 Glowinski, Roland See Bourgat, J. F.; et al., **(81j:73046)**
 LeTallec, P. See Bourgat, J. F.; et al., **(81j:73046)**
 Pervovskii, A. A. (with Gaigori, V. G.) ★Декомпозиция, агрегирование и приближенная оптимизация. (Russian) [Decomposition, aggregation and approximate optimization] **(81f:90104)**

49D29 Multiplier methods

- Bertsekas, Dimitri P. Penalty and multiplier methods. **81m:49036**
 Di Pillo, G. (with Grippo, L.) The multiplier method for optimal control problems of parabolic systems. **81d:49023**
 Grippo, L. See Di Pillo, G., **81d:49023**
 Jittorntrum, Krisorn Accelerated convergence for the Powell-Hestenes multiplier method. **81j:49019**

secondary classifications:

- Cinquini, C. (with Sacchi, G.) Problems of optimal design for elastic and plastic structures. (French summary) **(81a:73036)**
 Sacchi, G. See Cinquini, C., **(81a:73036)**

49D30 Other methods, not based on necessary conditions (penalty function, etc.)

- Adamczyk, L. Monotone spline interpolations and optimal control problem. **81m:49037**
 Banks, H. T. Approximation of nonlinear functional differential equation control systems. **81c:49019**
 Bercovier, Michel Approximation of Bingham's variational inequalities by a penalty function for the incompressibility constraint. **81m:49038**
 Carbone, Luciano (with Sbordone, Carlo) Some properties of Γ -limits of integral functionals. **81f:49034**
 Fujii, Seizo See Fujimoto, Hideo; et al., **81d:49024**
 Fujimoto, Hideo (with Fujii, Seizo; Takahashi, Kiyoshi) Improvement of the convergence rate in the transformation method for constrained optimal control problems and its application. **81d:49024**
 Hanouzet, B. (with Joly, Jean-Luc) Convergence géométrique pour les itérés définissant la solution d'une I. Q. V. abstraite. **81g:49034**
 Joly, Jean-Luc See Hanouzet, B., **81g:49034**
 Michalak, P. See Tatjewski, P., **81k:49027**
 Morgan-Sciarrino, J. Algorithme d'approximation interne de problèmes de point de selle avec contraintes via l'optimisation. (English summary) **81k:49026**
 Russ, Ion Application of game theory in the synthesis of reduced-sensitivity optimal control. (Romanian. English summary) **81g:49035**
 Sbordone, Carlo See Carbone, Luciano, **81f:49034**
 Stettner, L. (with Zabczyk, Jerzy) Stochastic version of a penalty method. **81m:49039**

Takahashi, Kiyoshi See Fujimoto, Hideo; et al., **81d:49024**

- Tatjewski, P. (with Michalak, P.) Algorithms of prediction methods in multilevel optimization. (Russian summary) **81k:49027**
 Tzafestas, S. G. Distributed-parameter optimal control via mathematical programming. **81i:49025**
 Vasil'ev, F. P. Regularization of ill-posed extremal problems. (Russian) **81j:49020**
 Vladimirov, A. A. Necessary conditions for successive maximin in an optimal control problem. (Russian) **81c:49029**
 Zabczyk, Jerzy See Stettner, L., **81m:49039**

secondary classifications:

- Arora, Jasbir S. Analysis of optimality criteria and gradient projection methods for optimal structural design. **(81i:49023)**
 Banichuk, N. V. ★Оптимизация форм упругих тел. (Russian) [Optimization of forms of elastic bodies] **(81j:73015)**
 Bartholomew-Biggs, M. C. Recursive quadratic programming based on penalty function for constrained minimization. **(81m:49041)**
 Bercovier, Michel (with Engelmann, Michael) A finite element method for incompressible non-Newtonian flows. **(81j:76001)**
 Beresnev, V. V. Method of nonsmooth penalty functions and the theory of extremum problems in Banach space. **(81d:49017)**
 Engelmann, Michael See Bercovier, Michel, **(81j:76001)**
 Goffin, J. L. Nondifferentiable optimization and the relaxation method. **(81f:90092)**
 Han, S.-P. (with Mangasarian, O. L.) Exact penalty functions in nonlinear programming. **(81h:90132)**
 Henkin, M. Z. See Volynskii, E. I.; et al., **(81f:65047)**
 Igamberdyev, H. Z. (with Mannapov, N. N.) Stable reconstruction, in Tikhonov's sense, of conductivity operators of dynamical systems. (Russian) **(81j:65073)**
 Kas'janenko, S. I. See Volynskii, E. I.; et al., **(81f:65047)**
 Kikuchi, Noboru (with Song, Young Joon) Remarks on relations between penalty and mixed finite element methods for a class of variational inequalities. **(81m:49006)**
 Kovács, Margit See Vasil'ev, F. P., **(81g:65091)**
 Lions, Jacques-Louis Some problems connected with Navier-Stokes equations. **(81c:76026)**
 Lupas, Laurențiu See Popeea, C., **(81i:93034)**
 Mangasarian, O. L. See Han, S.-P., **(81h:90132)**
 Mannapov, N. N. See Igamberdyev, H. Z., **(81j:65073)**
 Outrata, J. V. Extremal problems with an infinite number of inequality constraints. **(81k:90079)**
 Popeea, C. (with Lupas, Laurențiu) Optimal output feedback for decentralized linear systems with quadratic cost. (German and French summaries) **(81i:93034)**
 Powell, M. J. D. Variable metric methods for constrained optimization. **(81m:65107)**
 Pšenčnyĭ, B. N. (with Sobolenko, L. A.) Acceleration of the convergence of the linearization method for a problem of conditional minimization. (Russian) **(81g:65085)**
 Rapcsák, Tamás The optimal power transmission of mechanical speed gear. (Hungarian. English summary) **(81b:70002)**
 Sobolenko, L. A. See Pšenčnyĭ, B. N., **(81g:65085)**
 Song, Young Joon See Kikuchi, Noboru, **(81m:49006)**
 Vasil'ev, F. P. (with Kovács, Margit) On regularization of ill-posed extremal problems using penalty and barrier functions. (Russian) **(81g:65091)**
 Volynskii, E. I. (with Kas'janenko, S. I.; Henkin, M. Z.) A method of relaxing constraints in the problems for a conditional extremum. (Russian) **(81f:65047)**
 Zavriev, S. K. On finding stationary points in the problem of searching for a maximin with constraints. (Russian) **(81c:90075)**

49D35 Methods of linear programming type

- Pavlov, A. A. Reduction of the problem of time-optimal control of linear nonstationary dynamical objects to the mixed linear integer programming problem. (Russian. English summary) **81i:49026**

secondary classifications:

- Aleksandrov, V. M. Quasioptimal control and stabilization at random perturbations. **(81m:93056)**
 Bartiś, M. Ja. Application of the Newton-Kantorovič method to the solution of optimal control problems. (Ukrainian. Russian summary) **(81k:65073)**
 Kirsch, Uri Optimal design of trusses by approximate compatibility. **(81f:73043)**
 Klötzler, Rolf A-priori-Abschätzungen von Optimalwerten zu Steuerungsproblemen. II. (English and Russian summaries) **(81i:49022)**
 Zimonjić, Svetozar The gradient basis of the simplex method. II. (Serbo-Croatian. English summary) **(81h:90106)**

49D37 Nonlinear programming

- Gaivoronskii, A. A. A method of solving an extremal problem with constraints. (Russian) **81c:49030**
 Giannessi, F. Theorems of alternative, quadratic programs and complementarity problems. **81j:49021**
 Tzafestas, S. G. Mathematical programming approach to optimal distributed-parameter control. **81m:49040**

secondary classifications:

- Brousse, Pierre General methods of optimization in structural mechanics. (See **80h:73049**)
 Cyras, Aleksandras Optimization problems in theory of plasticity. **(81c:73025)**
 Eckhardt, Ulrich Weber's problem and Weiszfeld's algorithm in general spaces. **(81h:90123)**

- Kurik, L. M. (with Rastorguev, G. I.) The optimal form of cross section of a torsional rod. (Russian. Armenian and English summaries) (81g:73090)
- Lemke, C. E. A brief survey of complementarity theory. (81d:90101)
- Lindberg, P. O. A generalization of Fenchel conjugation giving generalized Lagrangians and symmetric nonconvex duality. (81j:90104)
- Noor, Khalida Inayat See Noor, M. Aslam, (81c:90081)
- Noor, M. Aslam (with Noor, Khalida Inayat) Iterative methods for variational inequalities and nonlinear programming. (81c:90081)
- Oettli, Karl Werner The method of feasible directions for continuous minimax problems. (81h:90119)
- Rastorguev, G. I. See Kurik, L. M., (81g:73090)
- Werner, Jochen Superlinear konvergente Verfahren der zulässigen Richtungen. (81m:65102)

49D39 Semi-infinite programming

- Noailles, Joseph Contrôle distribué et impulsif dans les équations d'évolution. Approximation et applications. (English summary) 81c:49031
- Osiadacz, A. Nonlinear programming applied to the optimum control of a gas compressor station. 81f:49035

secondary classifications:

- Brosowski, Bruno Zur parametrischen linearen Optimierung. II. Eine hinreichende Bedingung für die Unterhaltbarkeit. (81b:90140)
- Har'ev, V. N. One method for approximating functions of many variables to a global extremum. (81j:90115)
- Nguyen Khac Khoa Zielfunktionsdekomposition zum Lösen einer nichtlinearen Optimierungsaufgabe. (81j:90106)

49D40 Methods of quadratic programming type

- Bartholomew-Biggs, M. C. Recursive quadratic programming based on penalty functions for constrained minimization. 81m:49041
- Hass, Violet B. Positive definiteness of a quadratic functional. 81a:49001
- Hess, James (with Kalaba, Robert) Direct transformation of variational problems into Cauchy systems. I. Scalar-quadratic case. 81a:49018a
- Kalaba, Robert See Hess, James, 81a:49018a
- Kolmanovskii, V. B. (with Šilhet, L. E.) Approximate synthesis of quadratic control problems. (Russian. English summary) 81c:49032
- Rasopov, B. M. Synthesis and estimation of the efficiency of suboptimal control with application of Laguerre polynomials. (Russian) 81m:49042
- Šilhet, L. E. See Kolmanovskii, V. B., 81c:49032

secondary classifications:

- Altan, M. Orhan (with Bopp, Hanspeter; Krauss, Herbert) The rigid determination of the least-squares fitting of a straight line with correlated coordinates. (Turkish summary) (81f:65011)
- Bopp, Hanspeter See Altan, M. Orhan; et al., (81f:65011)
- Cottle, Richard W. (with Gohsen, Mark S.) A special class of large quadratic programs. (81c:90065)
- Gohsen, Mark S. See Cottle, Richard W., (81c:90065)
- Greis, F. K. (with Ray, W. Harmon) Stochastic control of processes having moving boundaries—an experimental study. (81d:93060)
- Krauss, Herbert See Altan, M. Orhan; et al., (81f:65011)
- Mihlin, S. G. The approximate solution of one-sided variational problems. (Russian) (81g:49015)
- Ray, W. Harmon See Greis, F. K., (81d:93060)
- Richter, C. Zur globalen Konvergenz des gedämpften Wilsonverfahrens. (English and Russian summaries) (81c:90082)

49D45 Methods of convex programming type

- Čurkov, V. I. Decomposition in the classical calculus of variations. (Russian) 81c:49020
- Hager, William W. (with Ianculescu, George D.) Semidual approximations in optimal control. 81m:49043
- Hobotov, E. N. Use of extrapolation method for solving convex problems of control of digital processes. 81h:49024
- Ianculescu, George D. See Hager, William W., 81m:49043
- Murat, François Compacité par compensation. 81f:49036

secondary classifications:

- Allwright, J. C. A feasible direction algorithm for convex optimization: global convergence rates. (81b:90118)
- Favorskii, A. P. See Golovizin, V. M.; et al., (See 80g:76002)
- Fejő, R. A. See Raupp, M. A.; et al., (81d:49008)
- Golovizin, V. M. (with Samarskii, A. A.; Favorskii, A. P.; Korshia, T. K.) Numerical simulation of MHD-problems on the basis of variational approach. (See 80g:76002)
- Kaplan, A. A. An iteration process with regularization for the solution of certain variational inequalities. (Russian) (81h:49006)
- Korshia, T. K. See Golovizin, V. M.; et al., (See 80g:76002)
- Moura, Carlos A. See Raupp, M. A.; et al., (81d:49008)
- Nesabov, É. I. A variant of subgradient algorithms for minimization of nonsmooth functions. (Russian) (81g:90072)
- Raupp, M. A. (with Fejő, R. A.; Moura, Carlos A.) An optimization algorithm for the pile driver problem. (81d:49008)
- Samarskii, A. A. See Golovizin, V. M.; et al., (See 80g:76002)
- Venec, V. I. Differential inclusions in convex problems. (81c:90081)

49D49 Geometric programming

49D50 Periodic optimization

secondary classifications:

- Bensoussan, A. (with Lions, Jacques-Louis; Papanicolaou, George C.) Homogenization and ergodic theory. (81h:60101)
- On the semigroup formulation of variational inequalities and quasivariational inequalities. (81c:49005)
- Chan, W. L. (with Ng, S. K.) Normality and proper performance improvement in periodic control. (81d:49018)
- Clorancescu, Doina (with Paulin, Jeannine Saint Jean) Homogenization in open sets with holes. (81j:35017)
- Damlamian, Alain (with Li, Da Qian) Comportement limite des solutions de certains problèmes mixtes pour des équations paraboliques. (English summary) (81f:35057)
- Kesavan, S. Homogenisation of second order elliptic eigenvalue problems. (81g:65141)
- Li, Da Qian See Damlamian, Alain, (81f:35057)
- Lions, Jacques-Louis Homogénéisation non locale. (81d:35058)
- Introductory remarks on asymptotic analysis of periodic structures. (81j:35022)
- Asymptotic expansions in perforated media with a periodic structure. (81f:35031)
- See also Bensoussan, A.; et al., (81h:60101)
- Marcellini, Paolo Periodic solutions and homogenization of nonlinear variational problems. (81j:35008)
- Marina Borghesani, Maria Ermolina The convergence of a sequence of nonlinear operators, and its perturbation by variational inequalities. (Italian. English summary) (81c:49010)
- Ng, S. K. See Chan, W. L., (81d:49018)
- Panasenko, G. P. Higher-order asymptotics of the solutions of problems on the contact of periodic structures. (Russian) (81f:35018)
- Papanicolaou, George C. Effective parameters and fluctuations for boundary value problems. (81g:35119)
- See also Bensoussan, A.; et al., (81h:60101)
- Paulin, Jeannine Saint Jean See Clorancescu, Doina, (81j:35017)
- Planchar, J. Computation of the acoustic eigenfrequencies of cavities containing a tube bundle. (81k:76029)
- Tartar, Luc Compensated compactness and applications to partial differential equations. (81m:35014)

49D99 None of the above, but in this section

- Brusch, Richard G. See Schappelle, Robert H., 81k:49029
- Korolev, V. S. See Kovalenko, A. N., 81f:49037
- Kovalenko, A. N. (with Korolev, V. S.) On the foundation of a stepwise optimization scheme. (Russian) 81f:49037
- Pančenko, A. M. Singular problems of the calculus of variations and asymptotic programming. (Russian) 81k:49028
- Schappelle, Robert H. (with Brusch, Richard G.) The automation of transversality conditions. 81k:49029

secondary classifications:

- Bakulinskii, A. B. Some methods for solving systems of monotone variational inequalities. (Russian) (81f:49007)
- Černous'ko, F. L. Approximation of integral functionals and numerical solution of variational problems. (81a:65025)
- Do Zui Cin' See Kovalev, M. M., (81f:90072)
- Fisher, S. D. Nonzero Lagrange multipliers. (81c:90089)
- Gaivoronkii, A. A. A nonstationary stochastic programming problem with changing constraints. (Russian) (81k:90072)
- Grego, Paola Patuzzo The G-convergence of ordinary differential equations in the case of unbounded domains. (Italian. English summary) (81h:34013)
- Kaufman, Howard See Travassos, R., (81a:65083)
- Kiljaško, G. A. Optimal algorithms for the search for the minimum of functions of the class $C_{1,2,\dots,k}^1$. (Russian. English summary) (81a:65059)
- Kovalev, M. M. (with Do Zui Cin') Analysis of a gradient algorithm for maximization of a discretely concave function. (Russian. English summary) (81f:90072)
- Liskovec, O. A. Discrete schemes in the regularization method for ill-posed problems. (Russian) (81a:65062)
- Oi, K. (with Sayama, H.; Takamatsu, T.) Multimodality analysis of a class of multistage allocation problems. (81f:90095)
- Ozernoi, V. M. Using preference information in multistep methods for solving multiple criteria decision problems. (81j:90117)
- Reddien, George W. Discretizations in optimal control and mesh selection. (81a:65064)
- Sayama, H. See Oi, K.; et al., (81f:90095)
- Takamatsu, T. See Oi, K.; et al., (81f:90095)
- Travassos, R. (with Kaufman, Howard) Parallel algorithms for solving nonlinear two-point boundary-value problems which arise in optimal control. (81a:65083)

49Exx Controllability and geometry of control problems

49E05 General dependence on controls

- Barrett, John Solution en série fonctionnelle de l'équation différentielle canonique en théorie du contrôle dans le cas analytique. (English summary) 81c:49021
- Radiševskii, A. E. An optimal control algorithm of a certain class. (Russian) 81k:49030

secondary classifications:

- Rasopov, B. M. Synthesis and estimation of the efficiency of suboptimal control with application of Laguerre polynomials. (Russian) (81m:49042)

49E10 Orienter fields (contingency equations)

secondary classifications:

Lee, E. B. Generalized quadratic optimal controllers for linear hereditary systems. (81g:93035)

Pieri, G. Variational characterization of the uniqueness of the optimal state for the minimal-time problem. (81g:49032)

49E15 Attainable sets, controllability

Gronski, Jan M. Classification of closed sets of attainability in the plane. 81h:49025

Liang, Chao Chu On autonomous control systems on certain manifolds. 81j:49022

Sieftan, P. Integrability of systems of vector fields. 81h:49026

Suslov, S. I. Extreme points of trajectory integrals and optimal control. (Russian) 81f:49038

secondary classifications:

Bacciotti, Andrea Caractérisation géométrique de processus optimaux avec contrôle initial. (81m:49016)

Cattaneo-Gasparini, Ida Algebraic and geometric methods in some applied problems. (Italian) (81m:00083)

Černous'ko, F. L. Guaranteed estimates of uncertainties by means of ellipsoids. (Russian) (81c:93075)

Hermes, Henry On the synthesis of a stabilizing feedback control via Lie algebraic methods. (81h:93070)

Mushinov, M. A. Attainable sets of differential inclusions. (Russian. Tajiki summary) (81g:34088)

Stern, Ronald J. On bilinear systems with coinciding attainable sets. (81c:93048)

Willems, J. L. Optimal state reconstruction algorithms for linear discrete-time systems. (81k:93046)

49E20 Interrelations between stability problems and optimization problems

Bondi, P. (with Fergola, P.; Gambardella, L.; Tenneriello, C.) Stability in guaranteed cost control problems of large-scale systems with uncertain unbounded parameters. 81m:49044

Dmitriev, M. G. (with Muradova, N. D.) Justification of the idealization of a mathematical model of periodic optimization. (Russian. Turkmen and English summaries) 81i:49027

Fergola, P. See Bondi, P.; et al., 81m:49044

Gambardella, L. See Bondi, P.; et al., 81m:49044

Muradova, N. D. See Dmitriev, M. G., 81i:49027

Nawaf, Ghassan Effectiveness of control algorithm. (See 81j:93007)

Tenneriello, C. See Bondi, P.; et al., 81m:49044

secondary classifications:

Aleksandrov, V. M. Quasioptimal control and stabilization at random perturbations. (81m:93056)

Petrov, A. G. Sufficient conditions for solvability of an optimal stabilization problem. (Russian) (81f:49019)

Stasinopoulos, G. I. Continuous dependence of constrained solutions of linear differential inclusions. (81g:49026)

Sussmann, Héctor J. Analytic stratifications and control theory. (81j:93016)

Villari, Gabriele Liénard limit cycle and controllability. (Italian. English summary) (81k:34023)

49E25 Effect of perturbations on controllability

Dončev, Asen L. (with Gičev, Todor R.) Convex singularly perturbed optimal control problem with fixed final state. Controllability and convergence. (German and Russian summaries) 81e:49033

Gičev, Todor R. See Dončev, Asen L., 81e:49033

secondary classifications:

Clărjă, Ovidiu Local controllability of nonlinear evolution equations in Banach spaces. (81m:47084)

Grassman, J. ★ On a class of nearly singular optimal control problems. (81h:93052)

Keys, Paul The solution and sensitivity of a general optimal control problem. (81j:49017)

Pal, Jayanta Suboptimal control using Padé approximation techniques. (81k:93022)

49E30 Relations between controllability and optimal solutions

Zadorožniĭ, V. F. Synthesis of time-optimal controllable dynamic systems. (Russian) 81f:49028

secondary classifications:

Degtyarev, G. L. Optimal control synthesis in systems with distributed parameters with respect to a local quality criterion. (Russian) (81g:93026)

Świerniak, Andrzej Performance deterioration of optimum systems. (81e:90046)

49E99 None of the above, but in this section

secondary classifications:

Furuta, K. (with Kajiwara, H.; Ochiai, T.) Modelling of human control action in man-machine system. (81m:93047)

Kajiwara, H. See Furuta, K.; et al., (81m:93047)

Ochiai, T. See Furuta, K.; et al., (81m:93047)

49Fxx Manifolds [See also 58Exx.]

49F05 Exterior differential forms, invariant integrals (Cartan theory) [See mainly 58A15.]

Kačur, Jozef (with Souček, Jiří) Direct variational methods in nonreflexive spaces. (Russian summary) 81a:49020

Souček, Jiří See Kačur, Jozef, 81a:49020

secondary classifications:

Cerami, Giovanna An existence criterion for the critical points on unbounded manifolds. (Italian) (81k:58021)

Shelton, Robert Critical points of harmonic functions on domains in \mathbb{R}^3 . (81k:58022)

Suvorov, S. G. Critical sets in optimization problems with several constraints. (Russian) (81k:58013)

Wente, J. Confinement of fields by suitable nonlinearities. (81i:81081)

49F10 Minimal surfaces [See mainly 53A10, also 58E12.]

Almgren, Frederick J., Jr. (with Simon, Leon) Existence of embedded solutions of Plateau's problem. 81d:49025

Beeson, Michael On interior branch points of minimal surfaces. 81i:49029

Ferro, Francesco A minimal surface theorem with generalized boundary data. (Italian summary) 81c:49022

Gulliver, Robert Representation of surfaces near a branched minimal surface. 81i:49030

Hardt, Robert M. (with Simon, Leon) Boundary regularity and embedded solutions for the oriented Plateau problem. 81i:49031

Meeks, William H., III (with Yau, Shing Tung) The classical Plateau problem and the topology of 3-manifolds. 81e:49034

Simon, Leon See Almgren, Frederick J., Jr., 81d:49025 and Hardt, Robert M., 81i:49031

Yau, Shing Tung See Meeks, William H., III, 81e:49034

secondary classifications:

Asada, Satoshi Notes on eigenvalues of Laplacian acting on p -forms. (81a:58050)

Barbosa, João Lucas (with do Carmo, Manfredo P.) Stability of minimal surfaces and eigenvalues of the Laplacian. (81h:53007)

do Carmo, Manfredo P. Minimal surfaces: stability and finiteness. (81h:53007)

See also Barbosa, João Lucas, (81h:53007)

Černikov, N. A. (with Šavohina, N. S.) Example of the relativistic two-body problem. I. The boundary value problem for a minimal surface. (Russian. English summary) (81j:83007a)

(with Šavohina, N. S.) Example of the relativistic two-body problem. II. Equations of motion. (Russian. English summary) (81j:83007b)

Chern, Shing Shen Affine minimal hypersurfaces. (81e:53007)

Dziuk, Gerhard Das Verhalten von Flächen beschränkter mittlerer Krümmung an C^1 -Randkurven. (81k:53001)

Ferro, Francesco Variational functionals defined on spaces of BV functions and their dependence on boundary data. (81f:49012)

Hardt, Robert M. (with Simon, Leon) Boundary regularity and embedded solutions for the oriented Plateau problem. (81h:53012)

Heinz, Erhard Über eine Verallgemeinerung des Plateauschen Problems. (English summary) (81i:53006)

Über die analytische Abhängigkeit der Lösungen eines linearen elliptischen Randwertproblems von Parametern. (81f:35035)

Mori, Hiroshi Remarks on the stability of a minimal surface in S^n . (81m:53008)

Osserman, Robert Properties of solutions of the minimal surface equation in higher codimension. (81h:53008)

Šavohina, N. S. See Černikov, N. A., (81j:83007a) and Černikov, N. A., (81j:83007b)

Schoen, Richard (with Yau, Shing Tung) Existence of incompressible minimal surfaces and the topology of three-dimensional manifolds with nonnegative scalar curvature. (81k:58029)

Simon, Leon A Hölder estimate for quasiconformal maps between surfaces in Euclidean space. (81h:30026)

See also Hardt, Robert M., (81h:53012)

Strömer, Gerhard Instabile Minimalflächen in Riemannschen Mannigfaltigkeiten nichtpositiver Schnittkrümmung. (81e:53038)

Yau, Shing Tung See Schoen, Richard, (81k:58029)

49F15 Morse theory in Hilbert and other spaces [See also 57R27, 58Exx.]

49F20 Geometric measure and integration theory, integral and normal currents, flat chains and cochains, varifolds [See also 28A75, 32C30, 58A25, 58C35.]

Fomenko, A. T. Universal lower bound of the growth rate of globally minimal solutions. (Russian) 81h:49027

Harvey, Reese (with Lawson, H. Blaine, Jr.) Geometries associated to the group SU , and varieties of minimal submanifolds arising from the Cayley arithmetic. 81h:49028

Lawson, H. Blaine, Jr. See Harvey, Reese, 81h:49028

secondary classifications:

Almgren, Frederick J., Jr. Minimal surfaces: tangent cones, singularities, and topological types. (81d:49026)

- Hardt, Robert M. (with Simon, Leon) Boundary regularity and embedded solutions for the oriented Plateau problem. (81i:49031)
 Lapey, Zs. Parametrization of nonsmooth boundaries for mixed type boundary value problems. (81m:26017)
 Ochiai, Takushiro Cone structures and positive currents. (81d:32019)
 Šteňovskii, A. I. Some differential properties of holomorphic mappings. (Russian) (81i:32019)
 Simon, Leon See Hardt, Robert M., (81i:49031)

49F22 Existence and structure of solutions to variational problems in geometric measure-theoretic setting

- de Acutis, Mimma Regularity of the minimal boundary with thin obstacles. (Italian) 81i:49035
 Almgren, Frederick J., Jr. Minimal surfaces: tangent cones, singularities, and topological types. 81d:49026
 Binschadler, David Finite groups and invariant solutions to one-dimensional Plateau problems. 81k:49031
 Invariant solutions to the oriented Plateau problem of maximal codimension. 81k:49032
 Gonzalez, Eduardo H. A. Regularity of the problem of the supported drop. (Italian) 81f:49039
 (with Tamanini, Italo) Convexity of the supported drop. (Italian) 81f:49040
 Tamanini, Italo See Gonzalez, Eduardo H. A., 81f:49040
 White, Brian The structure of minimizing hypersurfaces mod 4. 81k:49018

secondary classifications:

- Almgren, Frederick J., Jr. (with Simon, Leon) Existence of embedded solutions of Plateau's problem. (81d:49025)
 Dao Cong Thi Real minimal currents in compact Lie groups. (Russian) (81a:53051)
 Ohtsuka, M. V. A nonlinear multiply connected problem with a free boundary. (Russian. English summary) (81i:31013)
 Simon, Leon See Almgren, Frederick J., Jr., (81d:49025)

49F25 Surface area; Weierstrass and Burkill integrals, subadditive set functions

- Brandi, Primo (with Salvadori, Anna) The weak Burkill-Cesari integral. (Italian) 81a:49021
 (with Salvadori, Anna) On generalized area. (Italian) 81m:49045
 Frasca, Michele (with Quattrocchi, Gaetano) Some properties of the ordinary integral of calculus of variations taken in the sense of Weierstrass. (Italian) 81f:49041
 Quattrocchi, Gaetano See Frasca, Michele, 81f:49041
 Ragal, Marcello On the approximation and representation of the classical and generalized Burkill integral. (Italian) 81m:49046
 Salvadori, Anna See Brandi, Primo, 81a:49021 and Brandi, Primo, 81m:49045

secondary classifications:

- Baiada, Emilio (with Flocchi, Cristina) Classification of functions. (Italian) (81g:26004)
 Carbone, Luciano (with Sbordone, Carlo) Some properties of Γ -limits of integral functionals. (81f:49034)
 Dal Maso, Gianni Integral representation on $BV(\Omega)$ of Γ -limits of variational integrals. (81i:28007)
 Flocchi, Cristina See Baiada, Emilio, (81g:26004)
 Fusco, Nicola One-dimensional Γ -convergence. (Italian. English summary) (81d:49020)
 Goffman, Casper (with Liu, Fon Che) Derivative measures. (81c:26010)
 Liu, Fon Che See Goffman, Casper, (81c:26010)
 Nishitani, Togo Some examples relating surface area and the area integral. (81f:28008)
 Ragal, Marcello Interval functions and a generalized variation. (Italian) (81d:26007)
 Sbordone, Carlo See Carbone, Luciano, (81f:49034)

49F99 None of the above, but in this section

- Kačur, Jozef (with Souček, Jiří) Functions of measures and a variational problem of the type of the nonparametric minimal surface. (Russian summary) 81f:49042
 Souček, Jiří See Kačur, Jozef, 81f:49042

secondary classifications:

- Bruni, Marcello Hilbert forms and extremal properties in a manifold with generalized quaternion structure. (Italian. English summary) (81e:53050)
 Daniljuk, I. I. A class of free (unknown) boundary problems for elliptic equations. (Russian) (See 80f:35002)
 Debecker, P. On applications of homological algebra to calculus of variations and mathematical physics. (81h:58057)
 Dwivedi, B. D. See Pande, H. D., (81c:53032)
 Eliaev, N. V. Estimates of the dimensions of domains of regularity of solutions of certain equations. (Russian) (See 80f:35002)
 Pande, H. D. (with Dwivedi, B. D.) On conformal transformation in areal space. (81c:53032)
 Reckert, Hartmut Ein Eindeutigkeitssatz für Flächen konstanter mittlerer Krümmung. (81a:53008)
 Šteňovskii, V. M. The behavior of the solutions of elliptic equations in unbounded capillary regions. (Russian) (81g:35032)
 Ural'eva, N. N. Capillarity problems. (Russian) (See 80f:35002)

49Gxx Variational methods for eigenvalues [See also 47A70.]

49G05 Variational approach to eigenvalues

- Brietzke, Eduardo (with Nowosad, Pedro) Existence of optimal distribution of fuel in nuclear reactors. 81i:49032
 Elcrat, Alan R. (with MacLean, H. Alan) Weighted Wirtinger and Poincaré inequalities on unbounded domains. 81k:49033
 Greenlee, W. M. ★ Approximation of eigenvalues by variational methods. 81d:49027
 Hersch, Joseph Isoperimetrische Schranken für die Gebietsabhängigkeit einiger Funktionale der mathematischen Physik. (English summary) 81a:49008
 On the torsion function, Green's function and conformal radius: an isoperimetric inequality of Pólya and Szegő, some extensions and applications. 81k:49034
 Ioanescu, Bucur B. The Neumann eigenvalue problem for an elliptical domain. 81h:49019
 MacLean, H. Alan See Elcrat, Alan R., 81k:49033
 Nowosad, Pedro See Brietzke, Eduardo, 81i:49032
 Ozawa, Shin Perturbation of domains and Green kernels of heat equations. 81g:49036a
 Perturbation of domains and Green kernels of heat equations. II. 81g:49036b
 Perturbation of domains and Green kernels of heat equations. III. 81g:49036c
 Ramm, A. G. A variational principle for resonances. 81i:49033

secondary classifications:

- Aomoto, Kazuhiko Formule variationnelle d'Hadarnard et modèle des variétés différentiables plongées. (81m:81067)
 Bandle, Catherine ★ Isoperimetric inequalities and applications. (81c:35005)
 Berdševskii, V. L. Variational-asymptotic method of constructing the nonlinear shell theory. (81k:73034)
 Berk, H. L. (with Pfirsch, D.) WKB method for systems of integral equations. (81h:45028)
 Descloix, Jean Error bounds for an isolated eigenvalue obtained by the Galerkin method. (German summary) (81d:65061)
 Fichera, Gaetano The problem of the completeness of systems of particular solutions of partial differential equations. (81d:35023)
 Remarks on Saint-Venant's principle. (Italian summary) (81e:73012)
 Golubitsky, Martin See Shaeffer, David G., (81k:35019)
 Hill, Robert Nyden Tight lower bounds to eigenvalues of the Schrödinger equation. (81h:81016)
 Hirano, Masanobu (with Ikeda, Yoko) A linear potential for quark-antiquark pair system. (81d:81014)
 Hussain, M. A. (with Pu, S. L.; Noble, B.) Stress singularity at the vertex of a flat wedge-shaped crack by variational method. (81k:73043)
 Ikeda, Yoko See Hirano, Masanobu, (81d:81014)
 Kim, V. S. Multidimensional analogue of the Herglotz formula. (Russian) (81k:53057)
 Marcellini, Paolo Bounds for the third membrane eigenvalue. (81m:35105)
 Noble, B. See Hussain, M. A.; et al., (81a:73043)
 Noor, Khalida Inayat (with Noor, M. Aslam) A generalization of the Lax-Milgram lemma. (81h:47047)
 Noor, M. Aslam See Noor, Khalida Inayat, (81h:47047)
 Payne, L. E. On explicit norm inequalities and their applications in partial differential equations. (81c:55021)
 Pfirsch, D. See Berk, H. L., (81h:45028)
 Pu, S. L. See Hussain, M. A.; et al., (81a:73043)
 Rozzi, Tullio E. (with in't Veld, Gerard H.) Variational treatment of the diffraction at the facet of d.h. lasers and of dielectric millimeter wave antennas. (81h:78007)
 Schmidt, Robert Some inconsistencies arising in applications of Galerkin's method to bifurcation problems of elastic stability. (81m:65139)
 Schoen, Richard (with Wolpert, Scott; Yau, Shing Tung) Geometric bounds on the low eigenvalues of a compact surface. (81i:58052)
 Shaeffer, David G. (with Golubitsky, Martin) Boundary conditions and mode jumping in the buckling of a rectangular plate. (81k:35019)
 Sperr, René P. Maximum principles and nonlinear elliptic problems. (81f:35044)
 Sprekels, Jürgen (with Voss, Heinrich) Bounds for the critical value of a nonlinear circular membrane under normal pressure. (81h:73038)
 in't Veld, Gerard H. See Rozzi, Tullio E., (81h:78007)
 Voss, Heinrich See Sprekels, Jürgen, (81h:73038)
 Wolpert, Scott See Schoen, Richard; et al., (81i:58052)
 Xu, Shao Chang Variational principle for stability of spinning solid bodies with liquid-filled cavities and its applications. (81e:49038)
 Yau, Shing Tung See Schoen, Richard; et al., (81i:58052)

49G10 Rayleigh-Ritz methods

- Hennagin, Stephen C. (with Linz, Peter) Exclusion regions for eigenvalues of linear operators. 81d:49028
 Linz, Peter See Hennagin, Stephen C., 81d:49028

secondary classifications:

- Callaway, Joseph Comparison of Schwinger and Kohn variational phase shift calculations. (81h:81162)
 Dixit, V. V. (with Sarath, B.; Sobouti, Y.) Two basis sets for the g - and p -modes of self-gravitating fluids. (81h:76028)
 Gass, N. Solution of Einstein's gravitational field equations by the finite element method. (German and Russian summaries) (81e:83006)
 Hanna, S. Y. (with Michalopoulos, C. D.) Improved lower bounds for buckling loads and fundamental frequencies of beams. (81e:73045)
 Kolata, William (with Osborn, John E.) Nonselfadjoint spectral approximation and the finite element method. (81f:65041)
 Komorowski, Jacek A minorization of the first positive eigenvalue of the scalar

- Laplacian on a compact Riemannian manifold. (81m:58082)
 Michalopoulos, C. D. See Hama, S. Y., (81e:73045)
 Nitti, L. (with Pellicoro, M.; Villani, M.) Lower bounds for quantum energy levels through statistical mechanics methods. (81d:81025)
 Osborn, John E. See Kolata, William, (81f:65041)
 Pellicoro, M. See Nitti, L.; et al., (81d:81025)
 Sakawa, Yoshiyuki (with Ukai, Hiroyuki) Optimal shape of an elastic structure. (81k:73053)
 Sarath, B. See Dixit, V. V.; et al., (81h:76028)
 Sobouti, V. See Dixit, V. V.; et al., (81h:76028)
 Ukai, Hiroyuki See Sakawa, Yoshiyuki, (81k:73053)
 Villani, M. See Nitti, L.; et al., (81d:81025)
 Yang, Paul C. (with Yau, Shing Tung) Eigenvalues of the Laplacian of compact Riemann surfaces and minimal submanifolds. (81m:58084)
 Yau, Shing Tung See Yang, Paul C., (81m:58084)

49G15 Weinstein and Aronszajn methods, intermediate problems

- Goerisch, Friedrich Eine von Eigenvektoren freie Fassung eines Verfahrens von Bazley. (English summary) 81k:49035
 Richert, Walter R. Über Intermediateprobleme zweiter Art. (English summary) 81g:49037

secondary classifications:

- Fichera, Gaetano ★Numerical and quantitative analysis. (81a:65005)
 (Graffi, Sandro) See Fichera, Gaetano, (81a:65005)
 Landau, Henry J. (with Widom, Harold) Eigenvalue distribution of time and frequency limiting. (81m:45023)
 Penning, Frans (with Sauer, Niko) On a class of weighted Sobolev spaces and the minimization of quadratic forms. (81f:46048)
 Sauer, Niko See Penning, Frans, (81f:46048)
 Widom, Harold See Landau, Henry J., (81m:45023)

49G20 Linear operators in Hilbert spaces

- Rappaz, J. Approximation du spectre d'un opérateur non compact. 81d:49029

secondary classifications:

- Agol'kov, V. I. The method of integral identities. (Russian) (81m:65082)
 Binding, Paul (with Browne, Patrick J.) Comparison cones for multiparameter eigenvalue problems. (81k:47025)
 Browne, Patrick J. See Binding, Paul, (81k:47025)
 Cole, R. J. Complementary bivariental principles for linear problems involving nonselfadjoint operators. (81i:49009)
 Fichera, Gaetano Betti numbers of differentiable manifolds and multiplicity of eigenvalues. (81c:57040)
 Garašćuk, I. N. See Prikanžnikov, V. G., (81g:65072)
 Moszyński, Krzysztof Projection methods in the approximate solution of the eigenvalue problem in a Hilbert space. (81m:65088)
 Concerning some version of the Lax-Milgram lemma in normed spaces. (81i:35050)
 Prikanžnikov, V. G. (with Garašćuk, I. N.) A three-layer iteration scheme for computing the minimal eigenvalue. (Russian) (81g:65072)

49G99 None of the above, but in this section

secondary classifications:

- Hess, James (with Kagiwada, Harriet; Kalaba, Robert) Direct transformation of variational problems into Cauchy systems. II. Scalar-semiquadratic case. (81a:49018b)
 (with Kalaba, Robert) Direct transformation of variational problems into Cauchy systems. I. Scalar-quadratic case. (81a:49018a)
 Kagiwada, Harriet See Hess, James; et al., (81a:49018b)
 Kalaba, Robert See Hess, James, (81a:49018a) and Hess, James; et al., (81a:49018b)
 Landes, Rüdiger (with Mustonen, Vesa) On pseudomonotone operators and nonlinear noncoercive variational problems on unbounded domains. (81i:35057)
 Mustonen, Vesa See Landes, Rüdiger, (81i:35057)
 Stuart, C. A. A variational method for bifurcation problems when the linearization has no eigenvalues. (81e:58023)

49H05 Variational principles of physics [See also 70-XX, 81-XX.]

- Aldaya, V. (with de Azcárraga, José A.) Higher-order Hamiltonian formalism in field theory. 81m:49047
 Anderson, N. (with Arthurs, A. M.) Complementary variational principles for Maxwell's equations. 81i:49034
 Arthurs, A. M. See Anderson, N., 81i:49034
 de Azcárraga, José A. See Aldaya, V., 81m:49047
 Bazenov, V. A. (with Guljaev, V. I.) Investigation of the trajectory of loading of mechanical systems with unilateral constraints by the linear programming method. (Russian. English summary) 81a:49022
 Cole, R. J. Complementary variational principles and the Bubnov-Galerkin method. (Italian summary) 81f:49043
 Guljaev, V. I. See Bazenov, V. A., 81a:49022
 Herrera, I. Variational principles for problems with linear constraints: prescribed jumps and continuation type restrictions. 81i:49035
 Komkov, Vadim A dual form of Noether's theorem with applications to continuum mechanics. 81e:49036

- Komljenović, S. Noether's theorem and the isoperimetric problem in continuum mechanics. (Russian and Serbo-Croatian summaries) 81e:49037
 Leipholz, H. H. E. On Hamilton's principle in linear function spaces with semiscalar product. (German summary) 81b:49020
 Post, E. J. Local versus global conservation and Noether's theorem. 81m:49048
 Rumjancev, V. V. Some variational principles of mechanics. (Russian) 81d:49030
 Tonti, E. The reason of the analogies in physics. (See 80h:00004)
 v. Westenholz, Cornelius Topological and Noether-conservation laws. 81a:49023
 Xu, Shao Chang Variational principle for stability of spinning solid bodies with liquid-filled cavities and its applications. 81e:49038

secondary classifications:

- Arutjunjan, N. H. (with Kolmanovskii, V. B.) An optimization problem in creep theory for inhomogeneous beams subjected to aging. (Russian) (81f:73016)
 Battezzati, M. On the evaluation of second-order matrix elements of perturbation theory by variational methods. (Italian and Russian summaries) (81b:81002)
 Bellomo, Ettore (with Vianello, Piergiorgio) Concomitance, the consequent structural identities and conservation laws. (Italian) (81c:53020)
 Berežin, V. T. Nonequilibrium relativistic strain tensor and relativistic rigid disk rotation. (Russian. English summary) (81m:73014)
 Berger, M. S. (with Fraenkel, L. E.) Nonlinear desingularization in certain free-boundary problems. (81m:35055)
 Bismut, Jean-Michel Diffusions hamiltoniennes, optimalité stochastique et équations de Hamilton-Jacobi. (English summary) (81m:70027)
 Bory, Constantin I. Sur la thermodynamique des milieux continus non locaux. (English summary) (81e:73006)
 Cattaneo, Carlo Minimum theorems for the dynamics of constrained systems. (Italian. English summary) (81j:70013)
 Catto, Diego (with Francaviglia, Mauro) On the deduction of field equations for the unified theory of H. Weyl. (81h:83041)
 Četel'nickii, A. M. ★Экстремальность, устойчивость, резонансность в астрономии и космонавтике. (Russian) [Extremality, stability, and resonance in astrodynamics and cosmonautics] (81m:85004)
 Ceitin, A. A. See Ponomarev, V. N., (81g:83007)
 Chao, Alexander W. (with Wu, Tai Tsun; Yang, Chen Ning) Some inequalities in the eikonal approximation. (81i:81082)
 Chen, Chun Hsiung (with Lien, Ts'un Tê) The variational principle for nonselfadjoint electromagnetic problems. (81j:78023)
 Chowdhury, K. L. (with Glockner, P. G.) Hyperelastic dielectrics with saturated polarization. (French and German summaries) (81e:73086)
 Dahan, Marc Chargement asymétrique d'une fissure plane circulaire dans un milieu infini transversalement isotrope. (English summary) (81k:73059)
 Dähm, Joachim Zur numerischen Berechnung der Biegeschwingungen des beiderseitig frei aufliegenden geraden Stabes unter gefederten und ungefederten bewegten Lasten. (Russian, English and French summaries) (81k:73041)
 Duggan, R. C. Dual extremum principles and the hypercircle for some ordinary differential equation occurring in plate deflection theory. (81e:73038)
 Duruisseau, Jean-Paul Identification de principes variationnels avec champ scalaire dans le cas extérieur. (English summary) (81f:83039)
 Duvalet, Georges Équilibre d'un solide élastique avec contact unilatéral et frottement de Coulomb. (English summary) (81h:73051)
 Ecer, Akın Variational formulation of viscous flows. (81h:76021)
 Fraenkel, L. E. See Berger, M. S., (81m:35055)
 Francaviglia, Mauro See Catto, Diego, (81h:83041)
 Friedman, Avner (with Turkington, Bruce) Asymptotic estimates for an axisymmetric rotating fluid. (81h:76058)
 Gibson, W. G. Variational principle for the equilibrium Wigner distribution function. (81a:82017)
 Gillon, Daniel Stabilité des systèmes stellaires sphériques vis-à-vis des modes asphériques. (English summary) (81g:85006)
 Glockner, P. G. See Chowdhury, K. L., (81e:73086)
 Goenner, Hubert F. On the equivalence of the Palatini and Hilbert methods of variation. (81i:83011)
 Golebiewska Herrmann, Alicia On conservation laws of continuum mechanics. (81k:73006)
 Golst, G. (with Silde, O.) Differential principles of mechanics derived from the equation of virtual power. (Russian, Estonian and German summaries) (81m:70025)
 Gopalan, M. A. (with Nigam, S. D.) Complementary principles for Poiseuille flow in a porous pipe. (81h:76022)
 Curtin, Morton E. On patched variational principles in elasticity. (81j:73024)
 Hacatryan, A. A. The variational principle in elasticity theory with varying modulus. (Russian. Armenian summary) (81g:73008)
 Huston, Ronald L. (with Passerello, Chris E.) Multibody structural dynamics including translation between the bodies. (81m:70007)
 Jackiw, R. (with Kerman, Arthur) Time-dependent variational principle and the effective action. (81b:81097)
 Jamal, N. G. (with Kamala, V.; Prabhakara Rao, G. V.; Nigam, S. D.) Complementary variational principles for Poiseuille flow. (81f:76015)
 Jarić, Jovo P. (with Martinović, Milivoje) Conservation laws in linear thermoelasticity. (Russian summary) (81d:73102)
 On conservation laws in thermoelasticity. (Russian and Serbo-Croatian summaries) (81h:73056)
 Kamala, V. See Jamal, N. G.; et al., (81f:76015)
 Kamenjarić, Ja. A. (with Sedov, L. I.) Construction of new continuum models. (Russian) (81j:73008)
 Karnauhov, V. G. See Senčenko, I. K., (81g:73126)
 Keis, I. The dynamics of Lagrange systems with an aggregating invariant that is linear with respect to the Hamiltonian and the impulses. (Russian. Estonian and English summaries) (81i:70004)
 Kerčman, V. I. Variational problems for determining the contact platform of elastic

- bodies. (Russian) (81b:73053)
- Kerman, Arthur See Jackiw, R., (81b:81097)
- Kogan, M. I. See Sačenko, A. V., (81b:73012)
- Kolmanovskii, V. B. See Arutjunjan, N. H., (81f:73016)
- Komkov, Vadim See Valanis, K. C., (81b:82030)
- Korneeva, A. S. See Lukovskii, I. O., (81b:76009)
- Kumagai, Nobuaki See Morishita, Katsumi, (81f:78015)
- Kunstatter, G. Palatini variation of a generalized Einstein Lagrangian. (81b:83039)
- Lieb, Elliott H. Variational principle for many-fermion systems. (81m:81083)
- Lien, Ts'un Tse See Chen, Chun Hsiung, (81f:78023)
- Lietuviets, O. I. Fréchet differentiability of a functional in problems of plane-parallel magnetic field optimization. (Russian) (81a:78009)
- Litvinenko, O. S. Variational-method investigation of problems of nonlinear dynamics of a reservoir with a liquid. (81b:76009)
- Lukovskii, I. O. (with Korneeva, A. S.) Nonlinear equations of motion of a fluid in a circular right cylinder and the determination of their coefficients by a variational method. (Russian) (81b:76009)
- Lure, K. A. Some problems of optimal bending and extension of elastic plates. (81b:73018)
- Maier, P. (with Steigenberger, J.) Lagrange-Formalismus für diskrete elektromechanische Systeme. (English and Russian summaries) (81g:78040)
- Marčuk, G. I. (with Penenko, V. V.; Protasov, A. V.) The variational principle in a small parameter model of atmospheric dynamics. (Russian) (81g:86006)
- Martinić, Milivoje See Jarić, Jovo P., (81d:73102)
- Martins, L. C. (with Podio-Guidugli, P.) A variational characterization of vorticity. (Italian. English summary) (81d:76021)
- Merches, I. A constrained minimum energy problem in relativistic magnetofluid dynamics. (French summary) (81g:83005)
- Mikhailov, A. V. See Zaharov, V. E., (81c:35111)
- Morishita, Katsumi (with Kumagai, Nobuaki) Systematic derivation of variational expressions for electromagnetic and/or acoustic waves. (81f:78015)
- Morris, T. F. Classical confinement: field theories with spontaneously bounded domains. (81b:81157)
- Murakin, M. A study of solutions to the aesthetic field equations. (81m:83044)
- Narimanov, G. S. See Čedel'nickii, A. M., (81m:85004)
- Nguyen Quoc Son Sur l'application du second principe en présence d'une source de chaleur. (English summary) (81g:80001)
- Nigan, S. D. See Jamal, N. G.; et al., (81f:76015) and Gopalan, M. A., (81b:76022)
- Paskal', Ju. I. See Šredler, E. G., (81g:82031)
- Pasorello, Chris E. See Huston, Ronald L., (81m:70007)
- Penenko, V. V. See Marčuk, G. I.; et al., (81g:86006)
- Pina, H. L. Extremum principles in thermostatics. (81d:80002)
- Phist, Marc A strong variational principle for continuous spin systems. (81g:82076)
- Podio-Guidugli, P. See Martins, L. C., (81d:76021)
- Ponomarev, V. N. (with Ceitlin, A. A.) A variational principle in general relativity. (Russian) (81g:83007)
- Porter, D. See Sewell, Michael J., (81f:76003)
- Prabhakara Rao, G. V. See Jamal, N. G.; et al., (81f:76015)
- Protasov, A. V. See Marčuk, G. I.; et al., (81g:86006)
- Red'chenko, G. A. (with Segeda, Ju. N.) The structure of invariant equations of motion in generalized Lagrange-Ostrogradskii mechanics. (Russian. English summary) (81a:70023)
- Rosen, Joe Symmetry and conservation: inverse Noether's theorem and general formalism. (81c:81022)
- Rosen, Nathan (with Szamosi, G.) Classical particles with unusual properties. (81d:81143)
- Rund, Hanno Connection and curvature forms generated by invariant variational principles. (81b:53032)
- Sačenko, A. V. (with Kogan, M. I.) On variational equations of mixed type in elasticity theory. (Russian) (81b:73012)
- Sakmar, I. A. A variational problem for the forward or backward scattering amplitude with three constraints. (81b:81127)
- Sačarov, M. V. Generalization of a variational principle of hydrodynamics in the Euler representation. (Russian) (81f:76071)
- Variational models of electrohydrodynamics in the Euler and Euler-Lagrange representations. (Russian) (81m:76062)
- Schafir, R. L. Bondi's vector, and the Seliger & Whitham variational principle for matter fields. (81d:83030)
- Sedov, L. I. See Kamenjarz, Ja. A., (81f:73008)
- Segeda, Ju. N. See Red'chenko, G. A., (81a:70023)
- Senčenko, I. K. A minimum principle of linear coupled thermoviscoelasticity. (Russian. English summary) (81b:73098)
- (with Karnauhov, V. G.) Extremal principles in connected linear thermoelasticity. (Russian) (81g:73126)
- Sewell, Michael J. (with Porter, D.) Constitutive surfaces in fluid mechanics. (81f:76003)
- Sharma, C. S. (with Sri Ranganathan, S.) A new proof of the Brillouin theorem. (81g:81036)
- Silde, O. See Golst, G., (81m:70025)
- Song, Guo Xuan (with Yang, Gui Tong) Approximate solutions of residual deformations for impulsively loaded rigid-plastic structures. (Chinese. English summary) (81f:73043)
- Spinel, Giancarlo Gravitational field theory for the continuum: convergence to general relativity. (Italian summary) (81g:83051)
- Šredler, E. G. (with Paskal', Ju. I.) Variational principle in the thermodynamics of irreversible processes. (Russian) (81g:82031)
- Sri Ranganathan, S. See Sharma, C. S., (81g:81036)
- Steigenberger, J. See Maier, P., (81g:78040)
- Stern, Melvin E. A variational principle for turbulent flow. (81b:76034)
- Solovskii, Henryk An extremum principle for dynamics of rigid-plastic shells with large displacements. (81c:73072)
- Švec', R. M. Variational principles of the dynamic theory of thermoelasticity. (Russian) (81f:73058)
- Szamosi, G. See Rosen, Nathan, (81d:81143)
- Tallaferrro, Steven D. An inversion of the Lagrange-Dirichlet stability theorem. (81c:70012)
- Talman, James D. Eigenvalue correction estimates for the one-dimensional Schrödinger equation. (81f:81012)
- Telega, J. J. Variational principles for rate boundary value problems in nonassociated plasticity. (German and Russian summaries) (81f:73037)
- Turkington, Bruce See Friedman, Avner, (81b:76058)
- Turner, J. R. The frictional unloading problem on a linear elastic half-space. (81c:73092)
- Valanis, K. C. (with Komkov, Vadim) Irreversible thermodynamics from the point of view of internal variable theory (a Lagrangian formulation). (Polish and Russian summaries) (81b:82030)
- Valid, Roger Le critère de stabilité structurale pour les principes mixtes. (English summary) (81f:73025)
- Vianello, Piergiorgio See Bellomo, Ettore, (81c:53020)
- Wallner, R. P. Superpotential-forms and total energy/momentum in general relativity. (81b:83018)
- Wang, De Yu A variational principle for the equilibrium of a free-boundary plasma. (Chinese. English summary) (81b:76065)
- Washizu, Kiyochiro Complementary variational principles in elasticity and plasticity. (81c:73004)
- Wilson, W. B. Internal gauge symmetries and the gravitational field. (81d:81059)
- Wojnar, Ryszard Stress equations of motion for Uflyand-Mindlin plate. (Russian summary) (81b:73040)
- Wojniak, Czesław Abstract constraints in Newtonian mechanics. I. General foundations. (Russian summary) (81c:70001)
- Wu, Tai Tsun See Chao, Alexander W.; et al., (81a:81082)
- Yang, Chen Ning See Chao, Alexander W.; et al., (81a:81082)
- Yang, Gui Tong See Song, Guo Xuan, (81f:73043)
- Yasue, Kuniō Schrödinger's variational method of quantization revisited. (81g:81021)
- Zadojan, M. A. Mixed variational equation for plates and shells of nonlinear hereditary-aging material. (81m:73034)
- Zaharov, V. E. (with Mikhailov, A. V.) A variational principle for equations that are integrable by the inverse problem method. (Russian) (81c:35111)

51-XX GEOMETRY (For algebraic geometry, see 14-XX.)

51-01 Elementary exposition, textbooks

- Berger, Marcel ★Géométrie. Vol. 1. (French) [Geometry. Vol. 1] 81b:51001a
- ★Géométrie. Vol. 2. (French) [Geometry. Vol. 2] 81b:51001b
- ★Géométrie. Vol. 3. (French) [Geometry. Vol. 3] 81b:51001c
- ★Géométrie. Vol. 4. (French) [Geometry. Vol. 4] 81b:51001d
- ★Géométrie. Vol. 5. (French) [Geometry. Vol. 5] 81b:51001e
- Egorov, I. P. ★Геометрия. (Russian) [Geometry] 81m:51001
- Esteban Carrasco, Luis On the methodology of affine space. (Spanish) 81g:51001
- Gherardelli, Francesco (with Rosati, Luigi Antonio; Tomassini, Giuseppe) ★Lezioni di geometria. Vol. primo. (Italian) [Lectures in geometry. Vol. I] 81c:51001
- Greenberg, Marvin Jay ★Euclidean and non-Euclidean geometries. 81f:51001
- Jaglom, I. M. ★Геометрия линейных многообразий в n -мерном пространстве. (Russian) [Geometry of linear manifolds in n -dimensional space] 81b:51001
- Kirsch, Arnold (with Zech, Friedrich) ★Affine Geometrie der Ebene. (German) [Affine geometry of the plane] 81m:51002
- Mac Lane, Saunders Mathematical models of space. 81d:51001
- Millman, Richard S. The upper half plane model for hyperbolic geometry. 81c:51001
- Pijls, Wim Congruence and similarity. (Dutch) 81b:51002
- Rosati, Luigi Antonio See Gherardelli, Francesco; et al., 81c:51001
- Tomassini, Giuseppe See Gherardelli, Francesco; et al., 81c:51001
- Zech, Friedrich See Kirsch, Arnold, 81m:51002

secondary classifications:

- Aleksandrov, P. S. ★Курс аналитической геометрии и линейной алгебры. (Russian) [A course in analytic geometry and linear algebra] (81m:15001)
- Deschamps, C. See Ramis, E.; et al., (81a:15002)
- Geise, Gerhard ★Grundkurs lineare Algebra. (German) [A course on linear algebra] (81d:15001)
- Golovina, L. I. ★Линейная алгебра и некоторые ее приложения. (Russian) [Linear algebra and some of its applications] (81f:15001)
- Kárteszi, Ferenc ★Введение в конечные геометрии. (Russian) [Introduction to finite geometries] (81f:05002)
- Odoux, J. See Ramis, E.; et al., (81a:15002)
- Ramis, E. (with Deschamps, C.; Odoux, J.) ★Cours de mathématiques spéciales. Vol. 2. (French) [Course on special mathematics. Vol. 2] (81a:15002)
- Solodovnikov, A. S. See Kárteszi, Ferenc, (81f:05002)
- (Varpahovskii, F. L.) See Kárteszi, Ferenc, (81f:05002)

51-02 Advanced exposition (research surveys, monographs, etc.)

51-03 Historical (must also be assigned at least one classification number from Section 01)

- (Freudenthal, Hans) See Raumtheorie, 81c:51002
- Raumtheorie ★Raumtheorie. (German) [Theory of space] 81c:51002
- Space theory ★Raumtheorie. (German) [Theory of space] 81c:51002

secondary classifications:

- (Aryabhata I) See Elfering, Kurt, (81d:01005)
 Brauer, Richard ★Collected papers. Vol. III. (81i:01017c)
 Du Val, Patrick Beniamino Segre. (81h:01011)
 Elfering, Kurt The area of a triangle and the volume of a pyramid as well as the area of a circle and the surface of the hemisphere in the mathematics of Aryabhata I. (81d:01005)
 (Fong, Paul) See Brauer, Richard, (81i:01017c)
 Gray, Jeremy J. ★Ideas of space. (81k:01018)
 Greenberg, Marvin Jay ★Euclidean and non-Euclidean geometries. (81f:51001)
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- Bopp, Hanspeter (with Krauss, Herbert) Iterative Bestimmung des kürzesten Abstandes eines Punktes von einer Parabel. 81g:51002
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51Axx Linear incidence geometry

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- Greenberg, Marvin Jay The "real" projective plane without continuity. 81e:51003
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- Corrigendum: "Orthologic Desargues' figure" [51002 above] and "Special pairs of semibilogic and bilogic tetrahedra" [ibid. Ser. A 28 (1979), no.3, 303-308]. 81j:51003
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- Kuz'minykh, A. V. Generalization of the Darboux theorem. (Russian) (81b:51024)

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- Benz, Walter Zur Umkehrung von Matrizen im Bereich der Ternionen. 81f:51005
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- Kist, Günter (with Kroll, Hans-Joachim; Sörensen, Kay) Beispiel eines Körpers, der keinen Antiautomorphismus zulässt. (81a:12021)
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- Bartoli, Adriano (with Schreiber, E.; Strambach, Karl) The group of projectivities of free-like geometries. 81g:51005
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- Betten, Dieter Die Projektivitätsgruppe der Moulton-Ebenen. (English summary) (81c:51024)
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- Paoli, Antonio On transitive incidence algebras. (Italian. English summary) (81m:06003)
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51A45 Incidence structures imbeddable into projective geometries

- Dienst, Karl Jakob Hermitesche Mengen vom Index 2 und ihre Bedeutung für Minkowski-Ebenen. 81e:51003
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- Mullin, Ronald C. (with Vanstone, S. A.) Embedding the pseudocomplement of a quadrilateral in a finite projective plane. (81f:05037)
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- Cruciani, V. La géométrie et la théorie des catégories. (81c:18011)
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 Killgrove, Raymond B. (with Parker, E. T.; Kiel, Donald I.) Some combinatorial problems in the foundations of geometry. (81c:05015)
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- Kaerlein, Gerd Kettenebenen und der Satz von Miquel. 81f:51007
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- Barlotti, Adriano (with Schreiber, E.; Strambach, Karl) The group of projectivities in free-like geometries. (81g:51005)
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- Kaerlein, Gerd Kettenebenen und der Satz von Miquel. (81f:51007)

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- Kleinwillinghöfer, Ruth Eine Klassifikation der Laguerre-Ebenen nach ε -Strecken und ε -Translationen. 81m:51009
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- Heise, Werner (with Quattrocchi, Pasquale) A punctualization on Laguerre planes. (Italian. English summary) (81c:51016)
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- Bacon, Phyrne Youens ★ An introduction to Klingenberg planes. Vol. 2. (81i:51003a)
 ★ An introduction to Klingenberg planes. Vol. 3. (81i:51003b)
 Fisher, J. Chris (with Thas, Joseph A.) Flocks in $PG(3, q)$. (81a:05023)
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- Jungnickel, Dieter On TD-structures. (81j:05036)
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51D10 Abstract geometries with exchange axiom

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Verallgemeinerte Vierecke in pappusschen projektiven Räumen. 81i:51007

Heise, Werner (with Quattrocchi, Pasquale) A punctualization on Laguerre planes. (Italian. English summary) 81c:51016

Quattrocchi, Pasquale On a theorem of Pedrini concerning the nonexistence of certain finite Minkowski- m -structures. 81c:51017

See also Heise, Werner, 81c:51016

Ronan, Mark A. A geometric characterization of Moufang hexagons. 81k:51011

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Wefelscheid, Heinrich Eine Orthogonalitätsbeziehung in Hyperbelstrukturen. (81c:51013)

51E30 Other finite incidence structures [See also 05B30.]

- Barnabei, Marielena (with Bonetti, Flavio) Two examples of finite Bolyai-Lobachevsky planes. (Italian summary) **81e:51005**
- Bichara, Alessandro (with Mazzocca, Francesco; Somma, Clelia) On the classification of generalized quadrangles in a finite affine space $AG(3, 2^n)$. (Italian summary) **81h:51009**
- Bonetti, Flavio See Barnabei, Marielena, **81e:51005**
- Detroy, Ingrid Semi partial geometries satisfying the diagonal axiom. **81c:51018**
- Flori, Carla A class of finite projective pseudoplanes. **81f:51012**
- Hauptmann, Wolfgang Endliche $[0, 2]$ -Ebenen. **81j:51010**
- Hirschfeld, J. W. P. (with Hubaut, X.) Sets of even type in $PG(3, 4)$, alias the binary $(85, 24)$ projective geometry code. **81k:51012**
- Hubaut, X. See Hirschfeld, J. W. P., **81k:51012**
- Korchmáros, G. Questions relating to abstract ovals. (Italian) **81j:51011**
- Mazzocca, Francesco See Bichara, Alessandro; et al., **81h:51009**
- Somma, Clelia See Bichara, Alessandro; et al., **81h:51009**

secondary classifications:

- de Clerck, F. Partial geometries—a combinatorial survey. **(81k:05025)**
- Cooperstein, Bruce N. The geometry of root subgroups in exceptional groups. I. **(81c:20022)**
- Detroy, Ingrid Semipartial geometries. **(81k:05026)**
- Hauptmann, Wolfgang Kohärente Konfigurationen, quasiaffine Räume und distanz-reguläre Graphen. **(81i:05041)**
- Stern, Gerhard Tripelsysteme mit Untersystemen. **(81f:05048)**

51E99 None of the above, but in this section

secondary classifications:

- Kozel, P. T. Normal form of an isometry matrix of symplectic space over a finite field. (Russian) **(81f:51019)**
- Lovász, László Selecting independent lines from a family of lines in a space. **(81k:05028)**
- Sachar, Howard The F_p span of the incidence matrix of a finite projective plane. **(81e:94020)**
- Wolffmann, Jacques Un problème d'extrémum dans les espaces vectoriels binaires. (English summary) **(81m:94024)**

51Fxx Metric geometry

51F05 Absolute planes

- Molnár, E. Kegelschnitte auf der metrischen Ebene. **81e:51006**
- Wernicke, Bernd Ebene äquifläche und metrische Geometrien. **81m:51017**

51F10 Absolute spaces

51F15 Reflection groups, reflection geometries [See also 20H10, 20H15.]

- Burdina, V. I. Local transformations of rotation stereohedra. **81c:51019**
- Devidé, Vladimir A class of tetrahedra. (Serbo-Croatian) **81k:51013**
- Doković, Dragomir Z. Topological reflection groups. **81i:51008**
- Grünbaum, Branko (with Shephard, G. C.) Tilings with congruent tiles. **81k:51014**
- Karzel, Helmut (with Kist, Günter) Zur Begründung metrischer affiner Ebenen. **81d:51008a**
- (with Stanik, Rotraut) Rechtsebenen und ihre Darstellung durch Integritätssysteme. **81d:51008b**
- Kist, Günter See Karzel, Helmut, **81d:51008a**
- Klee, W. E. Topological aspects of crystallography. **81m:51018**
- Klotzke, B. (with Wendland, H.) Pseudoeuklidische Räume im Aufbau der Geometrie aus dem Spiegelungsbegriff. (See **80d:51002**)
- (Loeb, Arthur L.) See Wenninger, Magnus J., **81c:51020**
- Lomesto, Pertti What kind of parquet should I choose for the four-dimensional floor of my five-dimensional apartment? (Finnish. English summary) **81b:51011**
- Molnár, E. Kreisgeometrie und konforme Interpretation des mehrdimensionalen metrischen Raumes. **81h:51010**
- Noth, Wolfgang Erweiterte Spiegelungsgruppen metrischer Vektorräume. (English summary) **81g:51007**
- Palistrant, A. F. See Zamorzaev, A. M., **81m:51021**
- Shephard, G. C. See Grünbaum, Branko, **81k:51014**
- Stanik, Rotraut See Karzel, Helmut, **81d:51008b**
- Strommer, Gyula Construction of regular polygons in absolute geometry. (Hungarian. English summary) **81m:51019**
- Sztrivár, D. T. The fundamental element of symmetry of n -dimensional crystallography ($n = 1, 2, \dots, \infty$). (Russian) **81m:51020**
- Wendland, H. See Klotzke, B., (See **80d:51002**)
- Wenninger, Magnus J. ★Spherical models. **81c:51020**
- Zamorzaev, A. M. (with Palistrant, A. F.) Antisymmetry, its generalization and geometrical applications. **81m:51021**

secondary classifications:

- Bhatnari, Hom Nath Prime geometric subfield. **(81k:51018)**
- Bonnet, R. Disorientation between any two lattices. **(81k:82044)**
- Burdina, V. I. Types of stereohedra of revolution for the group 3×23 . (Russian) **(81k:51022)**
- Cundy, H. Martyn $p3m1$ or $p31m$? **(81d:20032)**
- (Dehane, B. N.) See Fedorov, E. S., **(81g:01022)**
- Fedorov, E. S. ★Правильное деление плоскости и пространства. (Russian) [Regular

division of the plane and space] **(81g:01022)**Fleischer, Herbert (with Imrich, Wilfried) Transitive planar graphs. (Russian summary) **(81f:05093)**(Frank-Kamenetskii, V. A.) See Fedorov, E. S., **(81g:01022)**Friedlein, H. R. Elliptische Bewegungsgruppen und orthogonale Gruppen vom Index 0. **(81i:51010)**Galliani, R. V. Axiomatic construction of the geometrical principles of crystallography. **(81c:52016)**See also Fedorov, E. S., **(81g:01022)**Gallian, Joseph A. (with Marttila, Charles A.) Reorienting regular n -gons. **(81f:20045)**Gonska, Heinz Herbert Zur Mathematisierung eines Polygonproblems. **(81c:05011)**Grimmer, Hans A unique description of the relative orientation of neighbouring grains. **(81i:82055)**Hyde, B. G. See O'Keeffe, M., **(81g:05052)**Imrich, Wilfried See Fleischer, Herbert, **(81f:05093)**Janner, A. (with Janssen, T.) Superspace groups. **(81b:20033)**Janssen, T. See Janner, A., **(81b:20033)**(Janukov, K. P.) See Fedorov, E. S., **(81g:01022)**Klarner, David A. A search for N -pentacube prime boxes. **(81j:52009)**Marttila, Charles A. See Gallian, Joseph A., **(81f:20045)**(Nardova, A. V.) See Fedorov, E. S., **(81g:01022)**O'Keeffe, M. (with Hyde, B. G.) Plane nets in crystal chemistry. **(81g:05052)**Ruoff, D. (with Shilleto, J.) Recursive polygons. (Italian summary) **(81f:51015)**(Šafarovič, I. I.) See Fedorov, E. S., **(81g:01022)**Sato, Mitsuo Derivation of possible framework structures formed from parallel four- and eight-membered rings. **(81e:05052)**Shilleto, J. See Ruoff, D., **(81f:51015)**Stanley, Richard P. Invariants of finite groups and their applications to combinatorics. **(81a:20015)**Steele, William A. Symmetry constraints on the configurational properties of nonlinear molecules. Tetrahedra. **(81a:81117)**(Stogrin, M. I.) See Fedorov, E. S., **(81g:01022)**Wernicke, Bernd Ebene äquifläche und metrische Geometrien. **(81m:51017)**

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Fedorov, E. S. See Fedorov, E. S., **(81g:01022)**

Biography:

Fedorov, E. S. See Fedorov, E. S., **(81g:01022)**

51F20 Congruence and orthogonality [See also 20H05.]

Harazišvili, A. B. The index of an isometric imbedding. (Russian. Georgian and English summaries) **81i:51009**Quaisser, Erhard Zu metrischen affinen Ebenen der Charakteristik 2. **81k:51015**

secondary classifications:

Kahn, Jeff Inversive planes satisfying the bundle theorem. **(81m:51007)**Kay, David C. Arc curvature in metric spaces. **(81k:53063)**

51F25 Orthogonal and unitary groups [See also 20H05.]

Friedlein, H. R. Elliptische Bewegungsgruppen und orthogonale Gruppen vom Index 0. **81i:51010**

51F99 None of the above, but in this section

Karzel, Helmut (with Stanik, Rotraut) Metrische affine Ebenen. **81f:51013**

Lester, J. A. A characterization of non-Euclidean non-Minkowskian inner product space isometries. **81f:51014**

Radó, F. On the characterization of affine isometries. **81e:51007**

Rosenberg, Ivo G. Structural rigidity of bar & joint and cabled frameworks. **81c:51021**

Stanik, Rotraut See Karzel, Helmut, **81f:51013**

Valentine, J. E. (with Waymont, S. G.) The Ceve property characterizes real, strictly convex Banach spaces. **81c:51022**

Waymont, S. G. See Valentine, J. E., **81c:51022**

secondary classifications:

Bilinski, Stanko Regularitätsmaße von Figuren in Kleinschen Räumen. **(81g:52009)**

Dröser, Jan Foundations of multidimensional metric scaling in Cayley-Klein geometries. **(81b:92012)**

de Paris, Gennaro (with Volzone, Gaetano) Block systems of a class of incidence structures. (Italian. English summary) **(81i:05044)**

Pierce, J. F. (with Whitman, A. P.) Topological properties of the manifolds of configurations for several simple deformable bodies. **(81g:73058)**

Volzone, Gaetano See de Paris, Gennaro, **(81i:05044)**

Whitman, A. P. See Pierce, J. F., **(81g:73058)**

51G05 Ordered geometries (ordered incidence structures, etc.)

Longwitz, Andreas Zur Axiomatik angeordneter affiner Ebenen. (English summary) **81c:51023**

Machala, František Angeordnete affine lokale Ternärringe und angeordnete affine Klingenbergsche Ebenen. **81m:51022**

51Hxx Topological geometry

51H05 General theory

51H10 Topological linear incidence structures

Betten, Dieter Die Projektivitätengruppe der Moulton-Ebenen. (English summary) **81c:51024**

Hejř, Milan Models of the Klein bottle. (Slovak and Russian summaries) **81j:51012**

secondary classifications:

Grob, Hansjochim \mathbb{R}^2 -planes with 2-dimensional point transitive automorphism group. **(81k:51016)**

Lorimer, J. W. Locally compact Desarguesian Hjelmslev planes of level n . **(81d:51006)**

Pachner, Udo Baryzentrische Unterraumschnitte des Simplex. **(81j:52010)**

51H15 Topological nonlinear incidence structures

51H20 Topological geometries on manifolds [See also 57-XX.]

Betten, Dieter Zur Klassifikation 4-dimensionaler projektiver Ebenen. **81j:51013**

Buchanan, Thomas Zur Topologie der projektiven Ebenen über reellen Divisionsalgebren. **81m:51023**

Grob, Hansjochim \mathbb{R}^2 -planes with 2-dimensional point transitive automorphism group. **81k:51016**

secondary classifications:

Abdel-Megied, M. (with Abdel-Tawab, Y.) The time topology on Minkowski space. (Arabic summary) **(81i:83005)**

Abdel-Tawab, Y. See Abdel-Megied, M., **(81i:83005)**

Löwen, Rainer Weakly flag homogeneous stable planes of low dimension. **(81k:51017)**
Symmetric planes. **(81m:51024)**

51H25 Geometries with differentiable structure [See also 53Cxx, 53C70.]

Löwen, Rainer Weakly flag homogeneous stable planes of low dimension. **81k:51017**
Symmetric planes. **81m:51024**

secondary classifications:

Hovanskii, A. G. Rectification of parallel curves. (Russian) **(81m:53001)**

51H30 Geometries with algebraic manifold structure [See also 14-XX.]

51H99 None of the above, but in this section

Gruber, Peter M. The space of compact subsets of E^d . **81b:51012**

Meisters, G. H. Principal vertices, exposed points, and ears. **81m:51025**

51Jxx Incidence groups

51J05 General theory

Bhattarai, Hom Nath Prime geometric subfield. **81k:51018**

51J10 Projective incidence groups

secondary classifications:

Hering, Christoph (with Walker, Michael) Perspectives in irreducible collineation groups of projective planes. II. **(81b:51007)**

Walker, Michael See Hering, Christoph, **(81b:51007)**

51J15 Kinematic spaces

Sørensen, Kay Projektive Abschließbarkeit von kinematischen Räumen. (English summary) **81c:51025**

secondary classifications:

Lübbert, Christoph Eine Kennzeichnung der Grenzgruppe des einfach-isotropen Raumes J^3 . **(81c:53010)**
Zerlegungen der Grenzgruppe des einfach-isotropen Raumes J_n . (English summary) **(81h:51017)**

51J20 Representation by near-fields and near-algebras [See also 12K05, 16A76.]

secondary classifications:

Karzel, Helmut (with Kist, Günter) Some applications of near-fields. **(81k:16036)**

Kist, Günter See Karzel, Helmut, **(81k:16036)**

51J99 None of the above, but in this section

Hotje, Herbert α -Inzidenzgruppen. (English summary) **81j:51014**

51Kxx Distance geometry

51K05 General theory

Freese, Raymond (with Murphy, Grattan) The CMP and Banach spaces with unique metric lines. **81g:51008**

Gumen, N. S. (with Sarnackaja, E. V.) The loci of points proportionally distant from two straight lines. (Russian) **81i:51011**

(with Sarnackaja, E. V.) The loci of points whose distances from a pair of circles of a plane are linked by a certain functional relationship. (Russian) **81i:51012**

Murphy, Grattan See Freese, Raymond, **81g:51008**

Sarnackaja, E. V. See Gumen, N. S., **81i:51011** and Gumen, N. S., **81i:51012**

secondary classifications:

DeBrot, David See Klapper, Michael H., **(81k:92063)**

Klapper, Michael H. (with DeBrot, David) Use of Cayley-Menger determinants in the calculation of molecular structures. **(81k:92063)**

51K10 Synthetic differential geometry

Miron, Radu Almost affine spaces over a field. **81i:51013**

51K99 None of the above, but in this section

secondary classifications:

Alsina, Clandi Product, convexification and completion of generalized and probabilistic metric spaces. (Spanish) **(81j:08002)**

Gruber, Peter M. The space of compact subsets of E^d . **(81b:51012)**

Guc, A. K. A note on the Helmholtz-Lie problem. (Russian) **(81d:53051)**

Kawaguchi, Akitsugu On the relation between multimetric spaces of Gähler and area spaces. **(81k:53062)**

51Lxx Geometric order structures [See also 53C75.]

51L05 Geometry of orders of nondifferentiable curves

51L10 Directly differentiable curves

51L15 n -vertex theorems via direct methods

51L20 Geometry of orders of surfaces

secondary classifications:

Bisztriczky, Tibor On surfaces of order three. **(81a:53060)**

51L99 None of the above, but in this section

51Mxx Real and complex geometry

51M05 Euclidean geometries

Bottema, Oene (with Groenman, J. T.) The common skewlines of the four circles of a triangle taken pairwise. (Dutch) **81j:51015**

Bumby, Richard T. An inequality for perimeters in a subdivided triangle. **81k:51019**

Chu, Tien Chen (with Huang, Chên Fang) On trimming a triangle. **81m:51026**

Čobanov, Ivan (with Stoev, Nikolai) An axiomatic approach to the real three-dimensional linear analytic geometry. (Bulgarian summary) **81k:51020**

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Huang, Chên Fang See Chu, Tien Chen, **81m:51026**

Kallenberg, G. W. M. On a set of isometries in E^n . **81d:51009**

Nakazawa, Teiji (with Tsuda, Takeo) An extension of a problem concerning an ellipse. (Japanese) **81i:51014**

Pach, János See Erdős, Paul, **81e:51008**

Snapper, Ernst An affine generalization of the Euler line. **81b:51014**

Stoev, Nikolai See Čobanov, Ivan, **81k:51020**

Tsuda, Takeo See Nakazawa, Teiji, **81i:51014**

Veldkamp, G. R. A multiple-sided curve. (Dutch) **81h:51011**

Woo, K. Y. Another definition for the angles between two n -planes in a Euclidean space. **81k:51021**

Yang, Lu (with Zhang, Jing Zhong) A proof of the simplex structure theorem. (Chinese) **81j:51016**

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Klempous, Ryszard (with Sikorski, Miron) Algorithms for Weber's problem with set-inclusive constraints. **(81k:90058)**

Naitō, Jun Classification of problems in Sangaku using Malfatti's circles. (Japanese) English summary **(81k:01010)**

Nakazawa, Teiji (with Tsuda, Takeo) Interrelation between two problems. **(81h:12014)**

Pijls, Wim Congruence and similarity. (Dutch) **(81b:51002)**

Sikorski, Miron See Klempous, Ryszard, **(81k:90058)**

Tomás, Francisco The absolute consistency of the geometry of the ruler and transport of segments. (Spanish) **(81i:03089)**

Tsuda, Takeo See Nakazawa, Teiji, **(81h:12014)**

51M10 Hyperbolic and elliptic geometries

Beardon, A. F. Hyperbolic polygons and Fuchsian groups. **81b:51015**

Coxeter, H. S. M. The non-Euclidean symmetry of Escher's picture "Circle Limit III". **81j:51017**

Gibbons, Joel (with Webb, Cary) Circle-preserving functions of spheres. **81b:51016**

- Kristensen, Erik Construction of a triangle with prescribed angles. (Danish. English summary) **81j:51018**
- Murphy, Malcolm On a hyperanalytic geometry for complex functions. **81e:51009**
- Pasquali Coluzzi, Dario Equivalence between polygons, and symmetries on the hyperbolic plane. (Italian. English summary) **81b:51017**
- Pikus, D. L. Congruence of symmetric figures in a Lobachevskii plane. (Russian) **81b:51015**
- Webb, Cary See Gibbons, Joel, **81b:51016**
- Wengerodt, G. Über Modelldarstellungen von Ebenen des vierdimensionalen hyperbolischen Raumes. **81b:51018**

secondary classifications:

- Al-Jubouri, N. K. On nonorientable hyperbolic 3-manifolds. (**81b:57008**)
- Gucul, I. S. (with Makarov, V. S.) A property of Fedorov groups of a Lobachevskii space. (Russian) (**81a:20056**)
- Makarov, V. S. See Gucl, I. S., (**81a:20056**)
- Mennicke, Jens L. Eine Pflasterung des dreidimensionalen hyperbolischen Raumes. (**81e:52008**)
- Trojanowski, Witold Generalization of the modular group and its application. (**81a:20057**)
- Vermes, I. Ausfüllungen der hyperbolischen Ebene durch kongruente Hyperzykelbereiche. (**81e:52018**)

51M15 Geometric constructions

- Güdel, R. Z. Representation of a four-dimensional projective space on a plane by means of oblique projection in P_3 . (Russian) **81b:51012**
- Jones, Dixon Quadrangles, butterflies, Pascal's hexagon, and projective fixed points. **81e:51010**
- Killingberg, Hans Georg The trapezium with given nonparallel sides and diagonals. (Norwegian. English summary) **81g:51009**
- Palej, Marian (with Sulwiński, Stanisław) Properties of a transformation of a sphere. (Polish. Russian and English summaries) **81b:51019**
- Sulwiński, Stanisław See Palej, Marian, **81b:51019**
- Vigand, O. A. Projections of plane angles. (Russian) **81b:51020**
- On the question of projections of plane angles. (Russian) **81b:51021**
- Angles with two equal orthogonal projections. (Russian) **81b:51022**
- Wode, Dieter Die Orthopol-Bijektion zwischen dem Feuerbachkreis und dem Büschel der Geraden durch den Umkreismittelpunkt eines Dreiecks. **81g:51010**

secondary classifications:

- Veldkamp, G. R. A multiple-sided curve. (Dutch) (**81b:51011**)

51M20 Polyhedra and polytopes; regular figures, division of spaces [See also 51F15.]

- Burdina, V. I. Types of stereohedra of revolution for the group 3×23 . (Russian) **81k:51022**
- Croft, H. T. On maximal regular polyhedra inscribed in a regular polyhedron. **81m:51027**
- Eart, C. F. (with March, L. J.) Architectural applications of graph theory. (See **81b:05050**)
- Gucul, I. S. A series of compact three-dimensional manifolds of constant negative curvature. (Russian) **81e:51026**
- Hinterreiter, Hans See Makovicky, Emil, **81e:51027**
- Makovicky, Emil The crystallographic art of Hans Hinterreiter. **81e:51027**
- March, L. J. See Eart, C. F., (See **81b:05050**)
- Modjanik, A. I. A problem on the tiling of Euclidean space. (Russian) **81e:51028**
- Mousson, B. R. The densities of certain regular star-polytopes. **81d:51010**
- Morganstern, Edmondo On a problem of Ph. Straffin. (Italian) **81a:51009**
- Ruoff, D. (with Shilieto, J.) Recursive polygons. (Italian summary) **81f:51015**
- Sah, C. H. ★Hilbert's third problem: scissors congruence. **81g:51011**
- Shilieto, J. See Ruoff, D., **81f:51015**
- Wunderlich, Walter Eine merkwürdige Familie von beweglichen Stabwerken. **81e:51011**

secondary classifications:

- Chu, Tien Chen (with Huang, Chen Fang) On trimming a triangle. (**81m:51026**)
- Florian, August Neuere Entwicklungen über reguläre Polyeder. (**81j:52007**)
- Floyd, William J. Group completions and limit sets of Kleinian groups. (**81e:57002**)
- Huang, Chen Fang See Chu, Tien Chen, (**81m:51026**)
- Nikula, V. V. Quotient-groups of groups of automorphisms of hyperbolic forms of subgroups generated by 2-reflections. (Russian) (**81m:51021**)
- Oliver, R. K. On Bieberbach's analysis of discrete Euclidean groups. (**81k:20067**)
- Wunderlich, Walter Windschiefe Gelenksehsecke mit schneidenden Diagonalen. (Serbo-Croatian summary) (**81e:53008**)
- Zaslavsky, Thomas Arrangements of hyperplanes; matroids and graphs. (**81b:05043**)

51M25 Length, area and volume [See also 26B15.]

- Kotelava, O. M. On axiomatics of volume in elementary geometry. (Russian) **81d:51011**
- Nikolaev, I. N. An approximate method for determining the length of an ellipse. (Russian) **81i:51016**

secondary classifications:

- Ahn, S. See Carroll, C. E.; et al., (**81m:26008**)
- Carroll, C. E. (with Yang, Chung Chun; Ahn, S.) Some triangle inequalities and generalizations. (**81m:26008**)

- Fukagawa, Hidetoshi The annulus and sphere problems in wasan. (Japanese) (**81m:01005**)
- Sah, C. H. ★Hilbert's third problem: scissors congruence. (**81g:51011**)
- Schoenberg, I. J. On a problem of Steinhilber on lattice points. (**81a:10063**)
- Yang, Chung Chun See Carroll, C. E.; et al., (**81m:26008**)

51M30 Line geometries and their generalizations

- Šturic-Čudovna, Vlasta Die Kongruenzen der Involutorstrahlen eines durch das (F_2^2) Flächenbüschel bestimmten (V/N) Komplexes. (Serbo-Croatian summary) **81b:51013**

secondary classifications:

- Denisova, N. S. See Vyplavina, R. P., (**81m:53015**)
- Vyplavina, R. P. (with Denisova, N. S.) Application of biquaternions and their analogues to the differential geometry of 5-dimensional spaces. (Russian) (**81m:53015**)

51M35 Synthetic treatment of fundamental manifolds in projective geometries (Grassmannians, Veronesians and their generalizations) [See also 14M15.]

- Langov, Anani (with Mollov, Stojan) On two $n+1$ -dimensional surfaces of degree $n+1$ in $(2n+1)$ and $2n$ -dimensional projective space, respectively. (Bulgarian. German summary) **81d:51012**
- Mollov, Stojan See Langov, Anani, **81d:51012**
- Palej, Marian A remark on the analysis of some properties of a pencil of circles. (Polish. Russian and English summaries) **81b:51017**
- Panella Martinelli, Luigia On a notable metrical model of Veronese surfaces. (Italian) **81m:51028**
- Paukowitz, Hans Peter Über Hyperflächen aus Quadriken und quadratischen Kegeln im reellen m -dimensionalen projektiven Raum. **81f:51016**

secondary classifications:

- Abeasis, Silvana On the Plücker relations for the Grassmann varieties. (**81m:14035**)
- Geronimo, Stefano On cubic transformations of orders $(1, 1, 3)$ of first degree between 3 projective spaces. (Italian) (**81b:14005**)
- Gurevič, E. S. Obtaining a quadratic transformation of P_3 by means of a transformation of a hypernet of lines in P_4 . (Russian) (**81f:14006**)

51M99 None of the above, but in this section

- Clapham, C. R. J. When a fabric hangs together. **81g:51012**
- Feml, Stanimir Einige Relationen zwischen den Kegelementen. **81f:51018**
- Lemmens, P. W. H. A note on configurations of lines. **81g:51013**
- Madevski, Zivko A note on the obtaining analytic inequalities from the geometric ones. (Macedonian summary) **81f:51019**

secondary classifications:

- Gupta, Hansraj Enumeration of incongruent cyclic k -gons. (**81f:10022a**)
- See also Reis, Richard H., (**81f:10022b**)
- Reis, Richard H. A formula for $C(T)$ in the paper: "Enumeration of incongruent cyclic k -gons" [Indian J. Pure Appl. Math. **10** (1979), no. 8, 964-999; MR **81f:10022a**, (**81f:10022b**)]

51Nxx Analytic and descriptive geometry

secondary classifications:

- Bottema, Oene (with Roth, B.) ★Theoretical kinematics. (**81e:70001**)
- Roth, B. See Bottema, Oene, (**81e:70001**)

51N05 Descriptive geometry

- Bondesen, Aage Remark on two proofs of Pohlke's theorem. (Danish. English summary) **81d:51014c**
- Bors, Maria See Rusu, I.; et al., **81i:51020**
- Eftimescu, Cornelia See Rusu, I.; et al., **81i:51020**
- Filippov, P. V. ★Начертательная геометрия многомерного пространства и ее приложения. (Russian) [Descriptive geometry of a multidimensional space and its applications] **81d:51013**
- Giering, Oswald (with Seybold, Hans) ★Konstruktive Ingenieurgeometrie. (German) [Descriptive geometry for engineers] **81j:51019**
- Haack, Wolfgang ★Darstellende Geometrie. III. (German) [Descriptive geometry. III] **81b:51023**
- Hacsaltoghlu, H. Hilmi Umbrella motions. (Turkish summary) **81f:51017**
- Hohenberg, Fritz Die Bricard'schen Kreise der Tangentenvierecke. **81g:51014**
- Killingberg, Hans Georg A simpler proof of Pohlke's theorem. (Norwegian. English summary) **81d:51014b**
- Kipidze, K. S. See Surabivili, L. A., **81e:51029**
- Ljubić, Ju. I. (with Šor, L. A.) ★The kinematic method in geometrical problems. **81m:51029**
- Marica, Carmen See Rusu, I.; et al., **81i:51020**
- Rusu, I. (with Viasu, Maria; Bors, Maria; Marica, Carmen; Eftimescu, Cornelia) Central projections onto $[B_2]$. (Romanian. French summary) **81i:51020**
- Salenius, Tarmo An elementary proof of Pohlke's theorem. (Swedish. English summary) **81d:51014a**
- Seybold, Hans See Giering, Oswald, **81j:51019**
- Šokurov, Vladimir See Ljubić, Ju. I.; et al., **81m:51029**

- Ser, L. A. See Ijubić, Ju. I., 81c:51029
 Surabivili, L. A. (with Kipsidze, K. S.) Ein Beitrag zur Untersuchung eines räumlichen fünfgliedigen Getriebes. 81c:51029
 Tölke, Jürgen Eine affine Verallgemeinerung eines globalen Satzes von J. Steiner. 81c:51030
 Vinu, Maria See Rusu, I., et al., 81i:51020
 Wunderlich, Walter Orthogonale Erzeugendenpolygone auf einschalen Hyperboloiden. (English summary) 81g:51015

secondary classifications:

- Alekseev, V. E. Contractible graphs. (Russian) (81i:05062)
 Enchev, K. A property of geometric relationships determined from kinematic schemes of plane lever mechanisms that facilitates their multiple differentiation. (Bulgarian. Russian and English summaries) (81c:70004)
 Fernandez-Sintes, Julio See Hoff, Nicholas J., (81m:70005)
 Galletti, Carlo (with Rossi, Aldo) Remarks on the positional analysis of the articulated quadrilateral. (Italian. English and French summaries) (81m:70003)
 Hlawka, Edmund Gleichverteilung und Quadratwurzelschnecke. (English summary) (81h:10009)
 Hoff, Nicholas J. (with Fernandez-Sintes, Julio) Kinematically unstable space frameworks. (81m:70005)
 Hohenberger, Holger Parabelkonstruktionen für die Praxis. (81c:51035)
 Kecskes, Zoltan Representation of three-dimensional wire complexes using line plotters. (Hungarian) (81k:51002)
 Lebedev, P. A. (with Luck, Kurt) Zur Theorie sphärischer kinematischer Paare mit Stift. (81m:70006)
 Luck, Kurt See Lebedev, P. A., (81m:70006)
 Morgantini, Edmondo On some generalizations of the theorem of Pythagoras. (Italian) (81a:51011)
 (Pythagoras) See Morgantini, Edmondo, (81a:51011)
 Rumi, Aldo See Galletti, Carlo, (81m:70003)
 Sarafutdinov, V. A. Reconstruction of Lambert's optical curve from two of its images. (Russian) (81h:86006)
 Schöne, Wolfgang Über die Koppelkurve des ebenen Viergelenkgetriebes. (81d:70002)

51N10 Affine analytic geometry

- Grochowski, Bogusław The formulas for decomposition of projective and affine spaces. 81c:51012
 Kur'myn, A. V. Generalization of the Darboux theorem. (Russian) 81b:51024
 Tölke, Jürgen Affine Trochoidenbewegungen. 81k:51023
 Parabeln mit gemeinsamem isotropem Krümmungskreis. 81c:51031

secondary classifications:

- Esteban Carrasco, Luis On the methodology of affine space. (Spanish) (81g:51001)
 Morgantini, Edmondo On a theorem of G. Tjiteca. (Italian) (81c:51010)
 Nakazawa, Teiji (with Tsuda, Takeo) An extension of a problem concerning an ellipse. (Japanese) (81i:51014)
 Prestel, Alexander (with Szczerba, Lesław W.) Nonaxiomatizability of real general affine geometry. (81a:03013)
 Schot, Steven H. Aberrancy: geometry of the third derivative. (81a:01024)
 Szczerba, Lesław W. (with Tarski, A.) Metamathematical discussion of some affine geometries. (81a:03012)
 See also Prestel, Alexander, (81a:03013)
 Tarski, A. See Szczerba, Lesław W., (81a:03012)
 Tsuda, Takeo See Nakazawa, Teiji, (81i:51014)

51N15 Projective analytic geometry

- Biba, J. A geometrical problem depending on the equation $ax - xa = 2$ in skew fields. 81k:51014
 Bottema, Oene Eine kubische Nullkorrelation. (Serbo-Croatian summary) 81g:51016
 A quadratic mapping in projective four-dimensional space. 81h:51015
 Cubic space curves on Cayley's cylindroid. 81i:51021
 Buchanan, Thomas Ovale und Kegelschnitte in der komplexen projektiven Ebene. 81c:51013
 Cvrinskaja, T. M. Geometry of involutory complexes in P_3 . (Russian) 81c:51032
 Mandan, Sahib Ram (with Sanyal, Arun) An extension of Hesse's theorem. 81j:51020
 Sanyal, Arun See Mandan, Sahib Ram, 81j:51020
 Sjarova, A. B. A third degree stratifiable involution, generated by a straight line congruence (2,4), in the space P_3 . (Bulgarian. Russian and English summaries) 81c:51033
 Trenčanský, Ivan Chain in S_1 . (Slovak and Russian summaries) 81j:51021
 Witczyński, Krzysztof On some properties of cyclic collineations in the n -dimensional projective space. 81a:51002

secondary classifications:

- Gerónimo, Stefano On cubic transformations of orders (1,1,3) of first degree between 3 projective spaces. (Italian) (81b:14005)
 Mandan, Sahib Ram Orthologic Desargues' figure. (81j:51002)
 Special pairs of semibilogic and bilogic tetrahedra. (81j:51003a)
 Corrigendum: "Orthologic Desargues' figure" [51002 above] and "Special pairs of semibilogic and bilogic tetrahedra" [ibid. Ser. A 28 (1979), no.3, 303-308]. (81j:51003b)
 Sanyal, Arun On triply perspective triangles. (81j:51004)
 Tölke, Jürgen Eine Bemerkung zu den Projektivbewegungen mit nur ebenen Bahnkurven. (81c:53017)
 Witczyński, Krzysztof On some properties of cyclic collineations in the n -dimensional projective space. (81a:51002)

51N20 Euclidean analytic geometry

- Amir-Moéz, Ali R. (with Goddarzi, Mohammed) Algebraic structure of polars. 81b:51025
 Aramí, Lia (with Aramí, Oleg) Une extension de la "section d'or" aux configurations spatiales. 81g:51017
 Aramí, Oleg See Aramí, Lia, 81g:51017
 Börner, Walter Zur axiomatischen Begründung der analytischen Geometrie. (Russian and English summaries) 81i:51022
 Bottema, Oene Eine Erweiterung der Stewart'schen Formel. 81j:51022
 Edwards, Bruce H. A geometric proof of a theorem of Scherk. (Spanish) 81c:51034
 Foster, James H. (with Pedersen, Jean J.) On the reflective property of ellipses. 81i:51023
 Goddarzi, Mohammed See Amir-Moéz, Ali R., 81b:51025
 Hohenberger, Holger Parabelkonstruktionen für die Praxis. 81c:51035
 Kirby, D. Concurrences for a triangle. 81i:51018
 Křivý, Ivan An algorithm for determining the reduced (Niggli) cell in crystallography. (Czech. English summary) 81k:51024
 Krötenheerdt, Otto (with Wildgrube, Eckhard) Über verknottete Polygone mit kongruenten Strecken und kongruenten Winkeln. 81h:51016
 Morgantini, Edmondo On some generalizations of the theorem of Pythagoras. (Italian) 81a:51011
 Palej, Marian (with Pogonowska, Anna) On a property of a band of conics resulting from a plane transformation. (Polish. Russian and English summaries) 81b:51026
 Pedersen, Jean J. See Foster, James H., 81i:51023
 Pogonowska, Anna See Palej, Marian, 81b:51026
 (Pythagoras) See Morgantini, Edmondo, 81a:51011
 Rigby, J. F. Quartic and sextic inequalities for the sides of triangles, and best possible inequalities. 81i:51024
 Rost, Georg Über Kegelschnittbüschel mit gegebenen metrischen Eigenschaften. 81a:51010
 Wildgrube, Eckhard See Krötenheerdt, Otto, 81h:51016

secondary classifications:

- Bopp, Hanspeter (with Krauss, Herbert) Iterative Bestimmung des kürzesten Abstandes eines Punktes von einer Parabel. (81g:51002)
 Čobanov, Ivan (with Stoev, Nikolai) An axiomatic approach to the real three-dimensional linear analytic geometry. (Bulgarian summary) (81k:51020)
 van Doorn, A. J. See Koenderink, J. J., (81g:92028)
 Koenderink, J. J. (with van Doorn, A. J.) Photometric invariants related to solid shape. (81g:92028)
 Krauss, Herbert See Bopp, Hanspeter, (81g:51002)
 Munkholm, Hans J. Simplices of maximal volume in hyperbolic space, Gromov's norm and Gromov's proof of Mostow's rigidity theorem (following Thurston). (81k:53046)
 Sieber, Helmut Die Berechnung von π nach Cusanus—ein Verfahren für Taschenrechner. (81g:51003)
 Stoev, Nikolai See Čobanov, Ivan, (81k:51020)

51N25 Analytic geometry with other transformation groups

- El Shinnawy, El Said The Euclidean plane kinematics. (Czech and Russian summaries) 81d:51015
 Lübbert, Christoph Zerlegungen der Grenzgruppe des einfach-isotropen Raumes J_1 . (English summary) 81i:51017
 Mirzo-zade, D. I. (with Stepashko, T. A.) Bisemiquaternion projective geometry. (Russian. Tajiki summary) 81c:51036
 Sachs, Hans Zur Geometrie der Hypersphären im n -dimensionalen einfach isotropen Raum. 81a:51012
 Stepashko, T. A. See Mirzo-zade, D. I., 81c:51036
 Vinzenz, Wilhelm Ein Satz über Dreieckswinkel und seine Beziehung zu einer Ungleichung von O. Perron. (English summary) 81i:51025

secondary classifications:

- Pavković, B. An interpretation of the relative curvatures for surfaces in the isotropic space. (Serbo-Croatian summary) (81m:53017)
 Strubecker, Karl Theorie der flächentreuen Abbildungen der Ebene. (81j:53018)
 Wode, Dieter Die Orthopol-Bijektion zwischen dem Feuerbachkreis und dem Büschel der Geraden durch den Umkreismittelpunkt eines Dreiecks. (81g:51010)

51N30 Geometry of classical groups [See also 20Gxx, 14Lxx.]

secondary classifications:

- Bottema, Oene (with Veldkamp, G. R.) Instantane projektive und affine Kinematik. (81j:53009)
 Veldkamp, G. R. See Bottema, Oene, (81j:53009)

51N35 Questions of classical algebraic geometry [See also 14Nxx.]

- Knight, A. J. Some loci in S_3 associated with systems of conics in a plane. 81c:51037
 Conics related by a pentagram: a problem of J. E. Reeve. 81c:51038

secondary classifications:

- Bottema, Oene Cubic space curves on Cayley's cylindroid. (81i:51021)
 Sjarova, A. B. A third degree stratifiable involution, generated by a straight line congruence (2,4), in the space P_3 . (Bulgarian. Russian and English summaries) (81c:51033)

51N99 None of the above, but in this section

Stynes, Martin On faster convergence of the bisection method for all triangles. 81j:51023

Vernikov, M. B. On a proof of the equivalence of the axiom systems of H. Weyl and A. N. Kolmogorov. (Russian) 81f:51019

secondary classifications:

Chirizita, G. A. (with Miranda, T. V. M.; Hernández, C. H.) Optimal time interval in the determination of the constants of speed of reaction using "projective geometry". (Spanish. English summary) (81d:80010)

Galgano, Anna See Galgano, Mario, (81f:92010)

Galgano, Mario (with Galgano, Anna) Tricometograms for transverse section models of hairs. III. Models of oval form with bilateral symmetry. (Italian. English summary) (81f:92010)

Hernández, C. H. See Chirizita, G. A.; et al., (81d:80010)

Miranda, T. V. M. See Chirizita, G. A.; et al., (81d:80010)

Pimenov, R. I. ★Негладкие и другие обобщения в теории пространства-времени и электричества. (Russian) [Nonsmooth and other generalizations in the theory of space-time and electricity] (81k:83041)

Radiobov, G. A. Three-dimensional spaces of support vector densities with a group of homotheties P_r and motions G_r ($r < 4$). (Russian) (81c:53034)

52-XX CONVEX SETS AND RELATED GEOMETRIC TOPICS

52-01 Elementary exposition, textbooks

Boltjanskii, V. G. (with Gohberg, Israel) ★The decomposition of figures into smaller parts. 81a:52001

(Branson, Thomas P.) See Boltjanskii, V. G.; et al., 81a:52001

(Christoffers, Henry) See Boltjanskii, V. G.; et al., 81a:52001

Gohberg, Israel See Boltjanskii, V. G., 81a:52001

Leichtweiss, Kurt ★Konvexe Mengen. (German) [Convex sets] 81j:52001

52-02 Advanced exposition (research surveys, monographs, etc.)

Leichtweiss, Kurt ★Konvexe Mengen. (German) [Convex sets] 81b:52001

Schneider, Rolf Boundary structure and curvature of convex bodies. 81i:52001

secondary classifications:

Betke, Ulrich (with Wills, Jörg M.) Stetige und diskrete Funktionale konvexer Körper. (81m:10062)

Wills, Jörg M. See Betke, Ulrich, (81m:10062)

52-03 Historical (must also be assigned at least one classification number from Section 01)

52-04 Explicit machine computation and programs (not the theory of computation or programming)

Batchelor, Bruce G. Two methods for finding convex hulls of planar figures. 81h:52001

Braid, I. C. (with Hillyard, R. C.; Stroud, I. A.) Stepwise construction of polyhedra in geometric modelling. (See 81i:68010)

Forrest, A. R. Recent work on geometric algorithms. (See 81i:68010)

Hillyard, R. C. See Braid, I. C.; et al., (See 81i:68010)

Kamide, Takeo A theory of Origami world. 81f:52001

Lee, D. T. (with Schachter, B. J.) Two algorithms for constructing a Delaunay triangulation. 81m:52001

Schachter, B. J. See Lee, D. T., 81m:52001

Stroud, I. A. See Braid, I. C.; et al., (See 81i:68010)

secondary classifications:

Fourier, Alain Comments on convex hull of a finite set of points in two dimensions. (81a:68047)

52-06 Proceedings, conferences, etc.

(Tölke, Jürgen) See Contributions to geometry, 81b:52002

(Wills, Jörg M.) See Contributions to geometry, 81b:52002

Contributions to geometry ★Contributions to geometry. 81b:52002

Geometry ★Contributions to geometry. 81b:52002

Siegen ★Contributions to geometry. 81b:52002

Symposium:

Geometry ★Contributions to geometry. 81b:52002

52A01 Axiomatic and generalized convexity

Blind, Rowitha (with Valette, G.; Zamfirescu, Tudor) Rectangular convexity. 81k:52001

Day, Brian J. Locale geometry. 81k:52002

Duguet, E. A few more results on the linear hull in convexity spaces. 81k:52003

Gony, M. D. Introduction to the theory of convexity-topological spaces. 81m:52002

Johnson-Waldner, Robert A convexity characterization of ordered sets. 81c:52001

Kolotvor, D. V. ★Построение алгоритма вычисления расстояний для одного класса метрических пространств. (Russian) [Construction of an algorithm for calculating distances for a class of metric spaces] 81m:52003

Ochotnikov, S. V. Convexity in subsets of a lattice. (Russian) 81f:52002

Valentine, J. E. Banach-Euclidean four-point properties. 81i:52002

Valette, G. See Blind, Rowitha; et al., 81k:52001

van de Vel, Marcel On pseudoboundaries and pseudo-interiors. 81c:52001

A Hahn-Banach theorem in subbase convexity theory. 81k:52004

Zamfirescu, Tudor See Blind, Rowitha; et al., 81k:52001

secondary classifications:

Freese, Raymond (with Murphy, Gratian) The CMP and Banach spaces with unique metric lines. (81g:51006)

Gardner, R. J. Results and conjectures on covering metric spaces. (81g:28006)

Gusak, I. Ja. (with Šalkin, Ju. A.) Finitely positively independent sets. (Russian) (81m:41030)

Lowen, Robert Convex fuzzy sets. (81h:26010)

Murphy, Gratian See Freese, Raymond, (81g:51006)

Šalkin, Ju. A. See Gusak, I. Ja., (81m:41030)

Soltan, V. P. (with Topalé, O. I.) Metric analogues of star-shaped sets. (Russian) (81k:52015)

(with Topalé, O. I.) Star sets in the Cartesian product of metric spaces. (Russian) (81k:52016)

Star-shaped sets in the axiomatic theory of convexity. (Russian. Georgian and English summaries) (81k:52017)

Takeo, Fukiho The absolute value of an element of the complexification of a simplex space. (81f:46015)

Topalé, O. I. See Soltan, V. P., (81k:52015) and Soltan, V. P., (81k:52016)

Valentine, J. E. (with Waymott, S. G.) The Ceva property characterizes real, strictly convex Banach spaces. (81c:51022)

Waymott, S. G. See Valentine, J. E., (81c:51022)

Zelinskii, Ju. B. On connection between properties of a compact set in C^n and its conjugate set. (81i:32015)

52A05 Convex sets without dimension restrictions

Bair, J. À propos des points extrêmes de la somme de deux ensembles convexes. (English summary) 81m:52004

Deumlich, Reinhard (with Elster, Karl-Heinz; Nehse, Reinhard) Recent results on separation of convex sets. (German and Russian summaries) 81m:52005

Elster, Karl-Heinz See Deumlich, Reinhard; et al., 81m:52005

Flann, Sjur D. A characterization of \mathbb{R}^2 by the concept of mild convexity. 81i:52003

Kutateladze, S. S. Linear problems of convex analysis. (Russian) 81f:52003

Lassak, Marek Some properties of B -convexity in Minkowski-Banach spaces. (Russian summary) 81c:52002

Nehse, Reinhard See Deumlich, Reinhard; et al., 81m:52005

Vangelère, J. Propriété de l'intersection en dimension quelconque. (English summary) 81k:52005

Wegmann, Rudolf Einige Masszahlen für nichtkonvexe Mengen. 81m:52006

secondary classifications:

Diminnie, Charles R. (with White, Albert G., Jr.) Strict convexity conditions for seminorms. (81g:46014)

Kalton, N. J. An F -space with trivial dual where the Krein-Mil'man theorem holds. (81m:46005)

Kojima, Masakazu (with Saigal, Romesh) A property of matrices with positive determinants. (81i:15016)

Ponstein, J. Fenchel duality in Banach spaces. (81m:90088)

Saigal, Romesh See Kojima, Masakazu, (81i:15016)

Schirmeler, Horst The geometric aspect of nuclearity. (81j:46021)

Štěpán, Josef Simplicial measures. (81d:46015)

White, Albert G., Jr. See Diminnie, Charles R., (81g:46014)

52A07 Convex sets in topological vector spaces [See also 46A55.]

secondary classifications:

Alpay, Şafak A localization of the equal support property. (Turkish summary) (81k:46005)

On the projective tensor product of compact convex sets with the strong equal support property. (Turkish summary) (81k:46006)

Andersen, Tage Bai A characterization of metrizable simplexes. (81k:46007)

Beer, Gerald On closed starshaped sets and Baire category. (81b:52009)

Bynum, W. L. Normal structure coefficients for Banach spaces. (81m:46030)

Itô, Masayuki Positive eigen elements for an infinitesimal generator of a diffusion semigroup and their integral representations. (81m:31002)

Phelps, R. R. Integral representations for elements of convex sets. (81m:46023)

Shiley, James On the theorem of Helley [Helly] concerning finite-dimensional subspaces of a dual space. (81k:46010)

Soltan, V. P. Metrically extremal and boundary points of convex sets in a normed space. (Russian) (81k:46016)

52A10 Convex sets in 2 dimensions

Breen, Marilyn Intersectional properties concerning planar m -convex sets. 81k:52006

Chakerian, G. D. Mixed areas and the self-circumference of a plane convex body. 81c:52002

Joris, H. Le chasseur perdu dans la forêt. 81d:52001

Katona, G. O. H. On a problem of L. Fejes Tóth. 81a:52002

Kramer, Horst Boundaries of smooth strictly convex plane sets. 81i:52004

Matte, Udo See Stammier, Ludwig, 81m:52007

Schöpf, Peter Ebene Mengen mit starker Schnitteigenschaft sind konvex oder haben ein konvexes Komplement. 81k:52007

- Scott, P. R. A family of inequalities for convex sets. **81a:52003**
 Soltan, V. P. Illumination of convex figures on the plane. (Russian) **81b:52003**
 Stammler, Ludwig (with Weissbach, Bernulf) Halbierungssätze zur Gestaltabweichung ebener Figuren. **81g:52001**
 (with Matthe, Udo) Stetigkeitsaussagen zur Diskussion des Schnittverhaltens einer Ovalenschar mit einem Oval. **81m:52007**
 Weissbach, Bernulf. See Stammler, Ludwig. **81g:52001**

secondary classifications:

- Brodie, Scott E. Archimedes' axioms for arc-length and area. **(81a:91003)**
 Katchalski, Meir (with Liu, Andy C. F.) Symmetric twins and common transversals. **(81k:52020)**
 (with Lewis, Ted) Cutting families of convex sets. **(81c:52011)**
 Lewis, Ted. See Katchalski, Meir. **(81c:52011)**
 Liu, Andy C. F. See Katchalski, Meir. **(81k:52020)**
 Lutwak, Erwin. Isoperimetric inequalities involving bisectors. **(81k:52024)**

52A15 Convex sets in 3 dimensions

- Chillingworth, David. Correction: "Collapsing three-dimensional convex polyhedra" [Proc. Cambridge Philos. Soc. **63** (1967), 353-357; MR **35** #995]. **81g:52003**
 Connelly, Robert (with Henderson, David W.) A convex 3-complex not simplicially isomorphic to a strictly convex complex. **81g:52002**
 Henderson, David W. See Connelly, Robert. **81g:52002**

52A20 Convex sets in n dimensions

- Bajmóczy, E. G. (with Bárány, Imre) On a common generalization of Borsuk's and Radon's theorem. **81i:52004**
 Bárány, Imre. See Bajmóczy, E. G. **81i:52004**
 Bronstein, E. M. Extremal convex functions and sets. (Russian) **81c:52003**
 Burton, G. R. The measure of the s -skeleton of a convex body. **81i:52005**
 Subspaces which touch a Borel subset of a convex surface. **81k:52008**
 Coquet, G. (with Dupin, J.-C.) On families of convex sets having the constant intersection property. **81c:52003**
 Dalla, Leoni (with Larman, D. G.) Convex bodies with almost all k -dimensional sections polytopes. **81m:52008**
 Davis, Philip J. See Najfeld, Igor; et al. **81f:52005**
 Dupin, J.-C. See Coquet, G. **81c:52003**
 Fedotov, V. P. The notions of a face of a convex compactum. (Russian) **81j:52002**
 Firey, Wm. J. Inner contact measures. **81k:52009**
 Gardner, R. J. (with McMullen, P.) On Hammer's X-ray problem. **81m:52009**
 Goodey, Paul R. (with Schneider, Rolf) On the intermediate area functions of convex bodies. **81k:52010**
 Gruber, Peter M. Durchschnitte und Vereinigungen monotoner Folgen spezieller konvexer Körper. **81a:52004**
 (with Lettl, Günter) Isometries of the space of convex bodies in Euclidean space. **81m:52010**
 Grygarová, Libuše (with Nožička, F.) Über asymptotische Berührung von konvexen Mengen. **81a:52005**
 Asymptotische Berührung von zwei konvexen Mengen in (bestimmter) Richtung. (Czech summary) **81c:52004**
 Hadwiger, H. (with Larman, D. G.; Mani, P.) Hyperrhombs inscribed to convex bodies. **81m:52011**
 Klee, Lothar. Grenzebenen unbeschränkter Polyeder. **81i:52006**
 Larman, D. G. The $d-2$ skeletons of polytopal approximations to a convex body in E^d . **81m:52012**
 See also Dalla, Leoni, **81m:52008** and Hadwiger, H.; et al., **81m:52011**
 Lettl, Günter. See Gruber, Peter M. **81m:52010**
 Mani, P. See Hadwiger, H.; et al., **81m:52011**
 McMullen, P. Transforms, diagrams and representations. **81i:52007**
 Continuous translation invariant valuations on the space of compact convex sets. **81m:52013**
 See also Gardner, R. J., **81m:52009**
 Najfeld, Igor (with Vitale, Richard A.; Davis, Philip J.) Minkowski iteration of sets. **81f:52005**
 Nožička, F. See Grygarová, Libuše, **81a:52005**
 Pogorelov, A. V. An analogue of the Minkowski problem for infinite complete convex hypersurfaces. (Russian) **81c:52004**
 Reider, Wulf. On the volume of unions of translates of a convex set. **81g:52004**
 Saldenko, A. V. Mappings that preserve volume. (Russian) **81g:52005**
 Sallinetti, Gabriella (with Wets, Roger J.-B.) Addendum: "On the convergence of convex sets in finite dimensions" [SIAM Rev. **21** (1979), no. 1, 18-33; MR **80h:52007**]. **81g:52006**
 Schneider, Rolf. Parallelmengen mit Vielfachheit und Steiner-Formeln. **81f:52006**
 See also Goodey, Paul R., **81k:52010**
 Tind, Jürgen. Certain kinds of polar sets and their relation to mathematical programming. **81h:52002**
 Vitale, Richard A. See Najfeld, Igor; et al., **81f:52005**
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52A30 Invariants of convex sets (star-shaped, (m, n) -convex, etc.)

Beer, Gerald On closed starshaped sets and Baire category. 81b:52009

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Gruber, Peter M. (with **Lettl, Günter**) Isometries of the space of convex bodies in Euclidean space. (81m:52010)

Lettl, Günter See **Gruber, Peter M.**, (81m:52010)

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Valette, G. See **Blind, Roswitha**; et al. (81k:52001)

Zamfirescu, Tudor See **Blind, Roswitha**; et al. (81k:52001)

52A35 Helly type theorems

Baldon, John D. (with **Silverman, Ruth**) Combinatorial properties of Helly-type sets. 81k:52019

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Lay, Steven R. Separating two compact sets by a parallelopete. 81d:52005

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Abbott-Jackson, Daniel See **Flak, Steve**; et al. (81k:05082)

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- Kleitman, Daniel J. See Fisk, Steve; et al. (81c:05082)
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 Vaina, Rimas See Borsuk, Karol, (81f:52019)
 Weissbach, Bernulf See Stammer, Ludwig, (81g:52001)
 Zubkov, A. M. A probabilistic proof of a geometric theorem. (Russian) (81m:26007)

52A43 Lattices and convex bodies [See also 10E05.]

secondary classifications:

- Černjakov, A. G. An example of a 32-dimensional even unimodular lattice. (Russian) (81a:10046)
 Venkov, B. B. Odd unimodular lattices. (Russian) (81a:10043)
 52A45 Packing, covering, tiling [See also 05B40, 05B45, 10E30, 51-XX]
 Belov, N. V. See Kuražkovskaja, V. S.; et al., 81i:52014
 Borsuk, Karol (with Vaina, Rimas) On covering of bounded sets by sets with the twice less diameter. 81f:52019
 Delone, B. N. (with Dolbilin, N. P.; Štogrin, M. I.) Combinatorial and metric theory of planigons. (Russian) 81c:52015
 Dolbilin, N. P. See Delone, B. N.; et al., 81c:52015
 Duff, G. F. D. A smaller universal cover for sets of unit diameter. 81k:52025
 Gallulin, R. V. Axiomatic construction of the geometrical principles of crystallography. 81c:52016
 Gilbert, E. N. The packing problem for twisted pairs. 81b:52011
 Goldberg, Michael Some overlooked convex polyhedral space-fillers. 81i:52012
 Gordon, Basil Tilings of lattice points in Euclidean n -space. 81d:52008
 Groemer, H. On finite classes of convex sets that permit space coverings. 81b:52012
 Hsi, Chen Jung A note on an elementary proof of a theorem on Euclidean plane packing. 81c:52026
 Jadaan, Khair S. A comparison between regular and random packing of particles—an experimental approach. (Arabic summary) 81i:52013
 Klarner, David A. A search for N -pentacube prime boxes. 81j:52009
 Kuražkovskaja, V. S. (with Smirnova, N. L.; Belov, N. V.) Relations between structural types. Symmetry of covering of trigonal and quadratic networks by polygons and the corresponding layers of polyhedra. 81i:52014
 Marstrand, J. M. Packing smooth curves in \mathbb{R}^d . 81d:52009
 Mennicke, Jens L. Eine Pflasterung des dreidimensionalen hyperbolischen Raumes. 81c:52008
 Odlyzko, A. M. (with Sloane, N. J. A.) New bounds on the number of unit spheres that can touch a unit sphere in n dimensions. 81d:52010
 Pachner, Udo Baryzentrische Unterraumschnitte des Simplex. 81j:52010
 Palásti, Ilona On a two-dimensional random space filling problem. 81d:52011
 Penrose, Roger Pentaplexity: a class of nonperiodic tilings of the plane. 81d:52012
 Pjatnickaja, G. N. (with Sinicyn, I. G.) Infinite turnpikes in a graph and optimal placement of figures of the same type in an infinite narrow strip. (Russian) 81d:52013
 Schulz, Christoph (with Wills, Jörg M.) Minimale Möbiusbänder und kleinste Kleinsche Flaschen. 81c:52017
 Sinicyn, I. G. See Pjatnickaja, G. N., 81d:52013
 Sloane, N. J. A. See Odlyzko, A. M., 81d:52010
 Smirnova, N. L. See Kuražkovskaja, V. S.; et al., 81i:52014
 Štogrin, M. I. See Delone, B. N.; et al., 81c:52015
 Vaina, Rimas See Borsuk, Karol, 81f:52019
 Vermes, I. Ausfüllungen der hyperbolischen Ebene durch kongruente Hyperzykelbereiche. 81c:52018
 Wills, Jörg M. See Schulz, Christoph, 81c:52017
 Yang, L. J. Multiple lattice packings and coverings of spheres. 81b:52013

secondary classifications:

- Aščepkov, L. T. On the construction of the maximum cube inscribed in a given domain. (Russian) (81g:90086)
 Baranovskij, E. P. See Ryškov, S. S., (81a:10045)
 Bos, A. Sphere-packings in Euclidean space. (See 81b:05001)
 Cutler, William H. Subdividing a box into completely incongruent boxes. (81c:05023)
 Erdős, Paul (with Pach, János) On a problem of L. Fejes Tóth. (81c:51008)
 Erickson, Ralph O. See Harris, William F., (81b:73051)

- Frankl, Péter Extremal problems and coverings of the space. (81k:05036)
 Hansen, H. C. An isoperimetric problem. (Danish. English summary) (81a:52011)
 Harris, William F. (with Erickson, Ralph O.) Tubular arrays of spheres: geometry, continuous and discontinuous contraction, and the role of moving dislocations. (81b:73051)
 Hortobágyi, L. Über die Durchlässigkeit einer aus Scheiben konstanter Breite bestehenden Schicht. (81c:52014)
 Khan, A. H. See Yaqub, M., (81j:62046)
 Klamkin, Murray S. (with Liu, Andy C. F.) Polyominoes on the infinite checkerboard. (81h:05047)
 Klee, Victor On the complexity of d -dimensional Voronoi diagrams. (81k:52014)
 Liu, Andy C. F. See Klamkin, Murray S., (81h:05047)
 Pach, János See Erdős, Paul, (81c:51008)
 Robinson, David Foster The mathematician and the carpet tiles. (81c:00010)
 Ryikov, S. S. (with Baranovskii, E. P.) Classical methods of the theory of lattice packings. (Russian) (81a:10045)
 Santaló, L. A. Random lines and tessellations in a plane. (81c:60012)
 Sleator, Daniel D. K. D. B. A 2.5 times optimal algorithm for packing in two dimensions. (81c:68052)
 Stojan, Ju. G. A generalization of a function of dense packing. (Russian. English summary) (81k:60076)
 Yaqub, M. (with Khan, A. H.) On the distribution of a distance function on the sphere. (81j:62046)

52A50 Hilbert geometry [See also 51Kxx.]

52A55 Spherical and hyperbolic convexity

Živaljević, Rade Note on H -convex functions. 81g:52013
 $mdH = md\bar{H}$. (Russian) 81h:52009

secondary classifications:

(Loeb, Arthur L.) See Wenninger, Magnus J., (81c:51020)
 Wenninger, Magnus J. ★Spherical models. (81c:51020)

52A99 Miscellaneous topics

- Johnson, Harold H. (with Vogt, Andrew) A geometric method for approximating convex arcs. 81f:52020
 McLeod, R. J. Y. The Steiner surface revisited. 81k:52027
 Rolewicz, Stefan On γ -paraconvex multifunctions. 81a:52013
 Štepankin, M. B. Geometric method of search for a common point of convex sets. 81g:52014
 Vogt, Andrew See Johnson, Harold H., 81f:52020

secondary classifications:

- Nožička, F. Spherical mappings of convex sets and convex parametrical optimization. (81i:90170)
 Šarafutdinov, V. A. Convex sets in a manifold of nonnegative curvature. (Russian) (81d:53039)
 Willson, Stephen J. A semigroup on the space of compact convex bodies. (81f:52007)

53-XX DIFFERENTIAL GEOMETRY (For differential topology, see 57Rxx. For foundational questions of differentiable manifolds, see 58Axx.)

53-01 Elementary exposition, textbooks

- Bel'ko, I. V. (with Vedernikov, V. I.; Vodnev, V. T.; Gusak, A. A.; Nahimovskaja, A. I.; Rjabuško, A. P.; Tutaeve, L. K.; Fedenko, A. S.) ★Сборник задач по дифференциальной геометрии. (Russian) [A collection of problems in differential geometry] 81i:53001
 Chern, Shing Shen From triangles to manifolds. 81a:53001
 Dubrovina, B. A. (with Novikov, S. P.; Fomenko, A. T.) ★Современная геометрия. (Russian) [Modern geometry] 81f:53001
 Fedenko, A. S. See Bel'ko, I. V.; et al., 81i:53001
 Fomenko, A. T. See Dubrovina, B. A.; et al., 81f:53001
 Gusak, A. A. See Bel'ko, I. V.; et al., 81i:53001
 Nahimovskaja, A. I. See Bel'ko, I. V.; et al., 81i:53001
 Novikov, S. P. See Dubrovina, B. A.; et al., 81f:53001
 Rjabuško, A. P. See Bel'ko, I. V.; et al., 81i:53001
 Tutaeve, L. K. See Bel'ko, I. V.; et al., 81i:53001
 Vedernikov, V. I. See Bel'ko, I. V.; et al., 81i:53001
 Ver Eecke, Paul ★Géométrie des espaces de Riemann. (French) [Geometry of Riemannian spaces] 81c:53001
 Vodnev, V. T. See Bel'ko, I. V.; et al., 81i:53001

secondary classifications:

- Dodson, C. T. J. ★Categories, bundles and spacetime topology. (81i:83001)
 Egorov, I. P. ★Геометрия. (Russian) [Geometry] (81m:51001)
 Georgiev, Georgi Iv. (with Oproiu, Vasile) ★Varietăți diferențiale finite și infinite dimensionale. Vol. II. (Romanian) [Finite- and infinite-dimensional differentiable manifolds. Vol. II] (81j:58001)
 Oproiu, Vasile See Georgiev, Georgi Iv., (81j:58001)

53-02 Advanced exposition (research surveys, monographs, etc.)

- Asperti, Antonio Carlos Generic differential geometry. (Portuguese) 81c:53001
 Greene, Robert E. (with Wu, Hung Hai) ★Function theory on manifolds which possess a pole. 81a:53002
 Roussseau, Christiane Complex structures on topoi. 81h:53001
 Wu, Hung Hai See Greene, Robert E., 81a:53002

53-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- (Einstein, Albert) See Georgiev, Georgi Iv., (81m:01051)
 (Freudenthal, Hans) See Raumtheorie, (81c:51002)
 Georgiev, Georgi Iv. Albert Einstein and the development of differential geometry. (Romanian) (81m:01051)
 (Hadamard, J.) See Picard, Charles-Émile, (81j:01049a)
 (Hervé, Michel) See Picard, Charles-Émile, (81j:01049a)
 Iamș, S. (with Popovici, Iulian) Gheorghe Vrănceanu: a precursor of global differential geometry. (81m:01054)
 (Leray, Jean) See Picard, Charles-Émile, (81j:01049a)
 Picard, Charles-Émile ★Œuvres de Ch.-É. Picard. Tome I. (French) [Works of Ch.-É. Picard. Vol. I] (81j:01049a)
 ★Œuvres de Ch.-É. Picard. Tome II. (French) [Works of Ch.-É. Picard. Vol. II] (81j:01049b)
 Popovici, Iulian See Iamș, S., (81m:01054)
 (Serre, Jean-Pierre) See Picard, Charles-Émile, (81j:01049a)
 (Vrănceanu, Gheorghe) See Iamș, S.; et al., (81m:01054)
 Bibliography:
 Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)
 Biography:
 Picard, Charles-Émile See Picard, Charles-Émile, (81j:01049a)
 Obituary:
 Vrănceanu, Gheorghe See Iamș, S.; et al., (81m:01054)
 Raumtheorie ★Raumtheorie. (German) [Theory of space] (81c:51002)
 Space theory ★Raumtheorie. (German) [Theory of space] (81c:51002)

53-04 Explicit machine computation and programs (not the theory of computation or programming)

53-06 Proceedings, conferences, etc.

- (Arty, Rafael) See Geometry and differential geometry, 81i:53003
 (Bazylev, V. T.) See Geometry of imbedded manifolds, 81c:53002
 (Čahtauri, A. L.) See Collection: Geometry, 81g:53001
 (Černavskii, A. V.) See Geometric methods in problems of analysis and algebra, 81d:53001
 (Čogolović, G. S.) See Collection: Geometry, 81g:53001
 (Malinov, V. I.) See Differential geometry of homogeneous spaces, 81i:53002
 (Mihailov, A. I.) See Problems in geometry, 81c:53003
 (Obata, Morio) See Minimal submanifolds and geodesics, 81d:53002
 (Vaisman, Iu.) See Geometry and differential geometry, 81i:53003
 (Verner, A. L.) See Questions of global geometry, 81b:53003
 Algebra ★Геометрические методы в задачах анализа и алгебры. (Russian) [Geometric methods in problems of analysis and algebra] 81d:53001
 Analysis ★Геометрические методы в задачах анализа и алгебры. (Russian) [Geometric methods in problems of analysis and algebra] 81d:53001
 Collection:
 Geometry ★Сборник работ по геометрии. II. (Russian) [Collection of articles on geometry. II] 81g:53001
 Colloquium:
 Differential Geometry ★Proceedings of the IV International Colloquium on Differential Geometry. 81b:53001
 Conference:
 Geometry and Differential Geometry ★Geometry and differential geometry. 81i:53003
 Nonholonomic Spaces ★Lucrările Conferinței Naționale de Spații Neolomne. (Romanian) [Proceedings of the National Conference on Nonholonomic Spaces] 81b:53002
 Differential geometry ★Proceedings of the IV International Colloquium on Differential Geometry. 81b:53001
 ★Geometry and differential geometry. 81i:53003
 Differential geometry of homogeneous spaces ★Дифференциальная геометрия однородных пространств. (Russian) [Differential geometry of homogeneous spaces] 81i:53002
 Geodesics ★Minimal submanifolds and geodesics. 81d:53002
 Geometric methods in problems of analysis and algebra ★Геометрические методы в задачах анализа и алгебры. (Russian) [Geometric methods in problems of analysis and algebra] 81d:53001
 Geometry ★Вопросы глобальной геометрии. (Russian) [Questions of global geometry] 81b:53003
 ★Проблемы геометрии. Том II. (Russian) [Problems in geometry. Vol. II] 81c:53003
 ★Сборник работ по геометрии. II. (Russian) [Collection of articles on geometry. II] 81g:53001
 Geometry and differential geometry ★Geometry and differential geometry. 81i:53003
 Geometry of imbedded manifolds ★Геометрия погруженных многообразий. (Russian) [Geometry of imbedded manifolds] 81c:53002
 Halfa ★Geometry and differential geometry. 81i:53003

Int'l ★Lucrările Conferinței Naționale de Spații Neolomne. (Romanian) [Proceedings of the National Conference on Nonholonomic Spaces] 81b:53002

Int'l Nauka i Tehnikă ★Проблемы геометрии. Том 11. (Russian) [Problems in geometry. Vol. 11] 81e:53003

Manifolds ★Геометрия погруженных многообразий. (Russian) [Geometry of imbedded manifolds] 81e:53002

Minimal submanifolds and geodesics ★Minimal submanifolds and geodesics. 81d:53002

Nonholonomic spaces ★Lucrările Conferinței Naționale de Spații Neolomne. (Romanian) [Proceedings of the National Conference on Nonholonomic Spaces] 81b:53002

Problems in geometry ★Проблемы геометрии. Том 11. (Russian) [Problems in geometry. Vol. 11] 81e:53003

Proceedings:

International Colloquium on Differential Geometry ★Proceedings of the IV

International Colloquium on Differential Geometry. 81b:53001

National Conference on Nonholonomic Spaces ★Lucrările Conferinței Naționale de Spații Neolomne. (Romanian) [Proceedings of the National Conference on Nonholonomic Spaces] 81b:53002

Questions of global geometry ★Вопросы глобальной геометрии. (Russian) [Questions of global geometry] 81b:53003

Santiago de Compostela ★Proceedings of the IV International Colloquium on Differential Geometry. 81b:53001

Seminars:

Japan-United States, Minimal Submanifolds and Geodesics ★Minimal submanifolds and geodesics. 81d:53002

Tokyo ★Minimal submanifolds and geodesics. 81d:53002

secondary classifications:

(Einstein, Albert) See General relativity and gravitation. (81b:83003)

(Harnad, John) See Geometrical and topological methods in gauge theories. (81e:81005)

(Held, Alan) See General relativity and gravitation. (81b:83003)

(Sholder, Steven) See Geometrical and topological methods in gauge theories. (81e:81005)

(Tölke, Jürgen) See Contributions to geometry. (81b:52002)

(Wills, Jörg M.) See Contributions to geometry. (81b:52002)

Contributions to geometry ★Contributions to geometry. (81b:52002)

Gauge theory ★Geometrical and topological methods in gauge theories. (81e:81005)

General relativity and gravitation ★General relativity and gravitation. Vol. 1. (81b:83003)

Geometrical and topological methods in gauge theories ★Geometrical and topological methods in gauge theories. (81e:81005)

Geometry ★Contributions to geometry. (81b:52002)

Montreal, Que. ★Geometrical and topological methods in gauge theories. (81e:81005)

Siegen ★Contributions to geometry. (81b:52002)

Summer Research Institute:

Canadian Mathematical Society ★Geometrical and topological methods in gauge theories. (81e:81005)

Geometrical and Topological Methods in Gauge Theories ★Geometrical and topological methods in gauge theories. (81e:81005)

Symposium:

Geometry ★Contributions to geometry. (81b:52002)

53Axx Classical differential geometry

53A04 Curves in Euclidean space

Hovanskii, A. G. Rectification of parallel curves. (Russian) 81m:53001

Pedersen, Flemming Danhus On the curvatures of midcurve and gable curve. 81e:53007

secondary classifications:

Brodie, Scott E. Archimedes' axioms for arc-length and area. (81a:01003)

Hacsalihoğlu, H. Hilmi The consequences of Meusnier's theorem and the real spherical motions. (Turkish summary) (81a:70002)

Hubbard, John Hannal On the convex hull genus of space curves. (81b:57002)

Mazanik, S. A. Relative rotation for a three-dimensional linear differential system. (Russian) (81j:34018)

Schot, Steven H. Aberrancy: geometry of the third derivative. (81a:01024)

53A05 Surfaces in Euclidean space

Brauner, Heinrich Über schmieglinientreue Isometrien. 81e:53004

Efimov, N. V. Some sufficient conditions for the diffeomorphism of two-dimensional mappings. (Russian) 81f:53002

Falkova, I. D. A class of V_p surfaces in a Euclidean space E_{p+2} . (Russian) 81g:53002

Familiari-Calapso, Maria Teresa On the surfaces of an n -dimensional Euclidean space which have a conicircular tangent field. (Italian. English summary) 81d:53003

Faranova, G. M. Generalization of the Egorov transform in E_3 . (Russian) 81m:53002

Foničeva, Ju. G. Existence in E^3 of an asymptotic quadrangle with a univalent spherical image and a given negative Gaussian curvature. (Russian) 81g:53003

Fomin, G. A. See Kamenekii, N. P., 81e:53005

Garmak, N. S. Determination of lines of curvature on the surface of a hyperboloid of one sheet, defined by a space quadrilateral. (Russian) 81m:53003

Glazyrin, V. V. Topological and metric structure of k -saddle surfaces. (Russian) 81h:53002

Hakimov, A. H. See Usmanov, Z. D., 81j:53001

Kamenekii, N. P. (with Fomin, G. A.) A class of surfaces of revolution. (Russian) 81e:53005

Kaptein, Jansz Another proof of the existence of a ball which lies in an open set and whose boundary is tangent to the boundary of the set. 81m:53004

Kenmotsu, Katsuei Surfaces of revolution with prescribed mean curvature. 81b:53003

Koljadov, S. M. Position of a closed surface depending on a given function of the sum of the Gaussian and mean curvatures. (Russian) 81a:53003

Lai, Hoa Fei Some results in Euclidean geometry. 81b:53004

Lowe, P. G. A note on surface geometry with special reference to twist. 81b:53005

Milnor, Tilla Klotz Mapping surfaces harmonically into E^n . 81a:53003

Murray, J. C. Curvilinear coordinate systems associated with a class of boundary value problems. 81g:53004

Sel'jukov, E. K. Geometry of nets invariantly adjoint to given orthogonal nets on V_p in E_p . (Russian) 81i:53004

Sokubeva, M. R. Some cases of a mapping of two-dimensional surfaces. (Russian) 81h:53004

Svoboda, Karel Several new characterizations of the 2-dimensional sphere in E^4 . 81e:53002

Usmanov, Z. D. (with Hakimov, A. H.) A singular case of the generalized Christoffel problem. (Russian. Tajiki summary) 81j:53001

Vel'kin, V. N. Some special fields of pseudonormals on surfaces in Euclidean space. (Russian) 81j:53002

Veselova, O. M. On the geometry of holonomic nets in the space E_3 . (Russian) 81b:53006

Vrăncanu, G. Tetrahedral surfaces. (Romanian) 81j:53003

Zeren, Leyla A generalization of quadric surfaces from the intrinsic properties point of view. (Turkish summary) 81b:53005

secondary classifications:

Benguria, R. (with Case, K. M.) Bäcklund transformations for multidimensional sine-Gordon equations. (81b:35041)

Case, K. M. See Benguria, R., (81b:35041)

Grafarend, Erik W. (with Mueller, Ivan I.; Papo, Haim B.; Richter, Burghard)

Concepts for reference frames in geodesy and geodynamics: the reference directions. (81b:86005)

Guş, Mihai M. Tissue on a surface. (French and Romanian summaries) (81m:53020)

Matsuyama, Yoshio On a certain hypersurface of R^{n+1} . (81m:53005)

Miles, R. E. The random tangential projection of a surface. (81d:60016)

Milnor, Tilla Klotz Mapping surfaces harmonically into E^n . (81a:53003)

Morton, H. R. A criterion for an embedded surface in R^3 to be unknotted. (81d:57006)

Mueller, Ivan I. See Grafarend, Erik W.; et al., (81b:86005)

Osserman, Robert Isoperimetric inequalities and eigenvalues of the Laplacian. (81g:52012)

Papo, Haim B. See Grafarend, Erik W.; et al., (81b:86005)

Puiu, Gabriel Cells of open surfaces. (Romanian. French summary) (81c:57007)

Richter, Burghard See Grafarend, Erik W.; et al., (81b:86005)

Svoboda, Karel Contribution to the characterization of the sphere in E^3 . (81c:53057)

Verner, A. L. Relation of properties of relatively polar saddle surfaces. (Russian) (81b:53047)

53A07 Higher-dimension and -codimension surfaces in Euclidean n -space

Hacsalihoğlu, H. Hilmi See Özdamar, E., 81f:53003 and Özdamar, E., 81f:53004

Lazarev, A. S. On the geometry of two-dimensional surfaces in E_4 . (Russian) 81f:53005

Partially parallel surfaces in E_3 . (Russian) 81j:53004

Liska, V. T. Holonomy of the principal directions of submanifolds of negative extrinsic curvature in space forms. (Russian) 81b:53007

Matsuyama, Yoshio On a certain hypersurface of R^{n+1} . 81m:53005

Mutô, Yôsei Submanifolds of a Euclidean space with homothetic Gauss map. 81e:53006

Özdamar, E. (with Hacsalihoğlu, H. Hilmi) Principal curvatures of a manifold and the shape operators. 81f:53003

(with Hacsalihoğlu, H. Hilmi) Higher order Gaussian curvatures and fundamental forms. (Turkish summary) 81f:53004

Piccoletta, Lia Fioravanti Umbilical tangent spaces of the V_n of S_{n+1} . (Italian. English summary) 81a:53003

Šidenko, A. V. Some characteristic properties of the ellipsoid. (Russian) 81b:53006

Sefel', S. Z. Surfaces in Euclidean space. (Russian) 81b:53008

Švec, Alois On the equivalence of isometric surfaces in E^4 . 81m:53006

Svoboda, Karel On characterization of the sphere in E^4 by means of the parallelness of certain vector fields. 81b:53009

Tenenblat, Ketí A rigidity theorem for three-dimensional submanifolds in Euclidean six-space. 81m:53007

secondary classifications:

Kaneda, Eiji On local isometric immersions of the spaces of negative constant curvature into the Euclidean spaces. (81f:53019)

Sasaki, R. Geometrization of soliton equations. (81j:35101)

Takamizu, A. Existence of convex hypersurfaces of R -curvature, which is a sum of integral conditional curvatures. (Russian) (81c:53058)

Tokuwaga, Masayoshi On the three-dimensional impeller with loxodromic curved blade. (81f:76012)

53A10 Minimal surfaces, surfaces with prescribed mean curvature [See also 49F10, 53C42.]

Barbosa, João Lucas (with do Carmo, Manfredo P.) Stability of minimal surfaces and eigenvalues of the Laplacian. 81b:53007

do Carmo, Manfredo P. Minimal surfaces in R^n . (Portuguese) (See 80c:00010b)

(with Da Silveira, Adel) Globally stable complete minimal surfaces in R^n . 81b:53010

See also Barbosa, João Lucas, 81b:53007

Chen, Chi Cheng Complete minimal surfaces with total curvature -2π . 81a:53005

Elliptic functions and nonexistence of complete minimal surfaces of certain type.

81c:53004

Da Silva, Adel. See de Carmo, Manoel P., 81b:53010

Dziuk, Gerhard. Das Verhalten von Flächen beschränkter mittlerer Krümmung an C^1 -Randkurven. 81b:53001

Gackstatter, Fritz. Konstruktion vollständiger Minimalflächen von endlicher Gesamtkrümmung—eine Anwendung der klassischen Theorie der Funktionen und Differentiale auf kompakten Riemannschen Flächen. 81b:53011

Hardt, Robert M. (with Simon, Leon) Boundary regularity and embedded solutions for the oriented Plateau problem. 81b:53012

Heinz, Erhard. Über eine Verallgemeinerung des Plateauschen Problems. (English summary) 81b:53006

Ichida, Ryonuke. Dirichlet problem for minimal surface equations in a Riemannian manifold. I. 81a:53006

Kemmotsu, Katsuei. The Weierstrass formula for surfaces of prescribed mean curvature. 81c:53005a

Weierstrass formula for surfaces of prescribed mean curvature. 81c:53005b

Marčenko, I. I. The growth of meromorphic minimal surfaces. (Russian) 81c:53006

Miklukov, V. M. Conformal type of surfaces, Liouville's theorem and Bernstein's theorem. (Russian) 81b:53013

Some properties of tubular minimal surfaces in R^n . (Russian) 81a:53007

Mori, Hiroshi. Remarks on the stability of a minimal surface in S^n . 81m:53008

Osserman, Robert. Properties of solutions of the minimal surface equation in higher codimension. 81b:53008

Pellh, V. I. Modulus of continuity of the solutions of Plateau's problem. (Russian) 81b:53014

Ruchert, Hartmut. Ein Eindeutigkeitsatz für Flächen konstanter mittlerer Krümmung. 81a:53008

Simon, Leon. See Hardt, Robert M., 81b:53012

Vikaruk, A. Ja. The Gauss mappings for minimal surfaces. (Russian) 81m:53009

secondary classifications:

de Acutis, Mimma. Regularity of the minimal boundary with thin obstacles. (Italian) (81e:49035)

Almgren, Frederick J., Jr. (with Simon, Leon) Existence of embedded solutions of Plateau's problem. (81d:49025)

Anzellotti, Gabriele. Harnack's inequality for quasilinear elliptic equations over surfaces of prescribed mean curvature. (Italian. English summary) (81j:35046)

Bancel, Daniel. Problèmes aux limites pour les hypersurfaces maximales lorentziennes. (English summary) (81j:58087)

Beeson, Michael. On interior branch points of minimal surfaces. (81i:49029)

Binschadler, David. Finite groups and invariant solutions to one-dimensional Plateau problems. (81k:49031)

de Carmo, Manoel P. Minimal surfaces: stability and finiteness. (81b:53037)

Chern, Shing Shen. Affine minimal hypersurfaces. (81c:53007)

Eells, James (with Lemaire, L.) On the construction of harmonic and holomorphic maps between surfaces. (81k:58030)

Gerhardt, Claus. Evolutionary surfaces of prescribed mean curvature. (81j:53078)

Gulliver, Robert. Representation of surfaces near a branched minimal surface. (81i:49030)

Hadlinger, André. Feuilletages avec feuilles minimales. (81i:7021)

Hardt, Robert M. (with Simon, Leon) Boundary regularity and embedded solutions for the oriented Plateau problem. (81i:49031)

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Lichnerowicz, A. Solutions généralisées du problème des surfaces minimales pour des données au bord non bornées. (81b:53035)

Meeks, William H., III (with Yau, Shing Tung) The classical Plateau problem and the topology of 3-manifolds. (81e:49034)

Rassias, Themistocles M. On Plateau's problem and a generalization of the Riemann mapping theorem. (Greek summary) (81d:58028)

Simon, Leon. A Hölder estimate for quasiconformal maps between surfaces in Euclidean space. (81b:30026)

See also Almgren, Frederick J., Jr., (81d:49025) and Hardt, Robert M., (81i:49031)

Strömer, Gerhard. Instabile Minimalflächen in Riemannschen Mannigfaltigkeiten nichtpositiver Schnittkrümmung. (81e:53038)

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53A15 Affine differential geometry

Alhaja, E. D. Geometry of a holonomic distribution defined by fundamental subobjects. (Russian. English summary) 81j:53005

Britov, A. V. A bifamily of planes in A_3 . (Russian) 81b:53005

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Funkova, T. P. One-dimensional manifolds of ellipses in three-dimensional equiaffine space. (Russian) 81j:53006

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Kretov, M. V. Complexes of ellipsoids in an affine space. (Russian) 81f:53006

Mitrofanova, E. A. A class of congruences of hyperbolic paraboloids in A_3 . (Russian) 81j:53007

Potlun, Mihai. Sur les courbes et hypersurfaces de Tzitzeica. 81c:53008

Sopina, E. P. Congruences of central quadrics in an affine space. (Russian) 81j:53008

Stojanov, A. V. Geometry of the centroaffine normalization of a hypersurface. (Russian) 81a:53009

Vasulin, V. V. On the equiaffine theory of the manifolds nX_{n-1}^{-1} . (Russian) 81k:53002

Vernikov, M. B. On the theory of curves of an odd-dimensional affine-symplectic space. (Russian) 81f:53007

secondary classifications:

Chern, Shing Shen (with Terng, Chuu Lian) An analogue of Bäcklund's theorem in affine geometry. (81b:58004)

Faris, William G. Invariance in calculus. (81d:26001)

Mal'mov, V. I. Two-dimensional solutions of a not completely integrable Pfaff equation. (Russian) (81m:58011)

Popov, Ju. I. Fundamental objects of a regular hyperband of an affine space. (Russian) (81i:53010)

Sasaki, Takeshi. Hyperbolic affine hyperspheres. (81c:53037)

Terng, Chuu Lian. See Chern, Shing Shen, (81b:58004)

53A17 Kinematics

Bottema, Oene (with Veldkamp, G. R.) Instantane projective and affine Kinematik. 81j:53009

Davitašvili, N. S. See Tavhildze, D. S., 81j:53011

Frank, Hubert. On kinematics of the n -dimensional Euclidean space. 81f:53008

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Kislookii, V. N. (with Sedleckaja, N. I.; Kačenko, A. V.; Sančuk, A. V.; Ivanova, L. S.) Algorithms for construction of special lines and grids on surfaces. (Russian) 81j:53010

Libbert, Christoph. Eine Kennzeichnung der Grenzgruppe des einfach-isotropen Raumes J^3 . 81c:53010

Über kinematische Geradenabbildungen. 81k:53003

Müller, Hans Robert. Zum Satz von Holditch. 81d:53004

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Sedleckaja, N. I. See Kislookii, V. N.; et al., 81j:53010

Tavhildze, D. S. (with Davitašvili, N. S.) Determination of the link dimensions of a plane five-linked hinged mechanism. (Russian. Georgian and English summaries) 81j:53011

Veldkamp, G. R. See Bottema, Oene, 81j:53009

Wunderlich, Walter. Windschiffe Gelenksehsecke mit schneidenden Diagonalen. (Serbo-Croatian summary) 81c:53008

secondary classifications:

Bottema, Oene (with Roth, B.) ★Theoretical kinematics. (81e:70001)

Fernandez-Sintes, Julio. See Hoff, Nicholas J., (81m:70005)

Gluckman, Albert G. Some kinematical characterizations of the Voigt coordinate transformations. (81f:83003a)

Some kinematical characterizations of the Voigt coordinate transformations. II. (81f:83003b)

González Gascón, F. (with Rodríguez-Camino, E.) On the axoids of a moving rigid body. (81h:70001)

Hoff, Nicholas J. (with Fernandez-Sintes, Julio) Kinetically unstable space frameworks. (81m:70005)

Lebedev, P. A. (with Luck, Kurt) Zur Theorie sphärischer kinematischer Paare mit Stift. (81m:70008)

Luck, Kurt. See Lebedev, P. A., (81m:70008)

Rodríguez-Camino, E. See González Gascón, F., (81h:70001)

Roth, B. See Bottema, Oene, (81c:70001)

Tölke, Jürgen. Affine Trochoidenbewegungen. (81k:51023)

Eine affine Verallgemeinerung eines globalen Satzes von J. Steiner. (81c:51030)

Eine Bemerkung zu den Projektivbewegungen mit nur ebenen Bahnkurven. (81c:53017)

Wunderlich, Walter. Eine merkwürdige Familie von beweglichen Stabwerken. (81c:51011)

53A20 Projective differential geometry

Anzick, F. Eine durch das Kleinsche Übertragungsprinzip vermittelte projektive Differentialgeometrie der windschiefen Flächen. 81a:53010

Backes, F. Sur une certaine suite de congruences W . 81c:53012

Bogoljubova, K. Ju. Invariants of a pair of congruences associated with a pair of surfaces in P_3 . (Russian) 81a:53011

Čakmazjan, A. V. The Norden-normalized submanifold with a parallel field of normal directions in P_n . (Russian) 81g:53006

Čapenko, V. P. A class of congruences $(P, Q)_{2,2}$. (Russian) 81i:53007

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Mahorkin, A. V. A Pfaffian system of differential equations for a class of complexes of quadrics in P_3 . (Russian) 81m:53013

Mal'kovskii, V. S. A class of congruences of quadrics. (Russian) 81k:53005

Congruences of quadrics in three-dimensional projective space. (Russian. English summary) 81j:53012

Marcus, Froim. On the \mathcal{Q} -correspondence of coincidence surfaces. 81b:53010

On a result of Tzitzeica and a new asymptotic transformation of minimal

53A55 Differential invariants (local theory), geometric objects

- Belomo, Ettore (with Vianello, Piergiorgio) Concomitance, the consequent structural identities and conservation laws. (Italian) 81c:53020
- Bikerv, S. I. (with Dočev, Dočo T.) On the geometry of the asymmetric case of hyperbolic systems of two first-order partial differential equations with two unknown functions and two independent variables. (Russian. Bulgarian and English summaries) 81d:53008

Invariant foliations of the manifold of integral tangent elements for the asymmetric case of hyperbolic systems of first-order partial differential equations. (Russian. Bulgarian and English summaries) 81d:53009

(with Dočev, Dočo T.) Conservation laws for the asymmetric case of hyperbolic systems of two first-order partial differential equations. (Russian. Bulgarian and English summaries) 81d:53010

Quasilinearity of a system of two first-order partial differential equations. (Russian. Bulgarian and English summaries) 81d:53011

- Bulacu, Driss (with Sibirskii, K. S.) Centroaffine invariants of a quadratic differential system. (Russian) 81a:53015
- Cveticnik, I. V. Approximation of surfaces by the construction of vector fields. (Russian) 81j:53019

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Kasperek, Erwin (with Lorens, Michał) Extended divergence and extended rotation of tensor densities. (Polish summary) 81m:53019

Kondrašinov, V. A. A three-parameter family of curves in a three-dimensional analytic space. (Russian) 81d:53012

Kuzakov, V. M. (with Rahula, M. O.) Invariants of a fibration of a locally Euclidean surface. (Russian) 81a:53016

Lorens, Michał See Kasperek, Erwin, 81m:53019

Rahula, M. O. See Kuzakov, V. M., 81a:53016

Sibirskii, K. S. See Bulacu, Driss, 81a:53015

Vianello, Piergiorgio See Belomo, Ettore, 81c:53020

secondary classifications:

Almsar, A. (with Kōiv, M.) Hodograph transformations and hodograph invariant differential equations. (81k:83028)

Gray, Alfred (with Vanhecke, Lieven) Riemannian geometry as determined by the volumes of small geodesic balls. (81i:53038)

Gregory, L. J. Universal symmetry and the Klotz metric in Einstein's nonsymmetric field theory. (81i:83047)

Kania-Słuda, Maria Sur la commutativité de la solution de l'équation de translation. (81d:39005)

Karetska, Z. On a system of functional equations occurring in the theory of geometric objects. (81f:39011)

Kasperek, Erwin (with Kucharszewski, Mieczysław) Klein's geometry objects based on a certain matrix subgroup. (Polish. Russian and English summaries) (81b:51003)

Kōiv, M. See Almsar, A., (81k:83028)

Krupka, Demeter Reducibility theorems for differentiable liftings in fiber bundles. (81h:58010)

Kucharszewski, Mieczysław See Kasperek, Erwin, (81b:51003)

Pilecka, Barbara Le prolongement de la solution de l'équation de translation. (81c:39011)

Prasad, Gauraj On the geometry of relativistic magnetofluid flows. (81g:83037)

Prastaro, Agostino On the general structure of continuum physics. I. Derivative spaces. (Italian summary) (81m:73012)

(Šerbakov, B. A.) See Algebraic invariants of dynamic systems, (81j:34081)

Sacchini, Brunon Homogeneous linear objects of doubly pseudostochastic geometry. (Polish. Russian and English summaries) (81b:51005)

Tabor, József On commutative algebraic objects over the group $GL(n, R)$. (81i:08006)

Vanhecke, Lieven See Gray, Alfred, (81i:53038)

Zekanowski, Zbigniew On some generalized 2-inner products in the Riemannian manifolds. (81k:53041)

Algebraic invariants of dynamic systems ★Алгебраические инварианты динамических систем. (Russian) [Algebraic invariants of dynamic systems] (81j:34081)

Dynamic systems ★Алгебраические инварианты динамических систем. (Russian) [Algebraic invariants of dynamic systems] (81j:34081)

53A60 Geometry of webs [See also 14C21, 20N05.]

Bazylev, V. T. On the geometry of nets in an extended space. (Russian) 81h:53012

Chern, Shing Shen (with Griffiths, Phillip A.) Linearization of webs of codimension one and maximum rank. 81k:53010

Griffiths, Phillip A. See Chern, Shing Shen, 81k:53010

Gujá, Mihai M. Tissue on a surface. (French and Romanian summaries) 81m:53020

Ivanov, A. D. Mutually polar Bol three-webs of hyperbolic type. (Russian) 81f:53012

Sel'djukov, E. K. Some nets on two-dimensional surfaces in a five-dimensional Euclidean space. (Russian) 81j:53016

Stoev, G. S. The geometric structure of a class of even-dimensional webs of curves. (Bulgarian. Russian and German summaries) 81j:53020

On a class of 8-webs of curves. (Bulgarian. Russian and German summaries) 81j:53021

Timoshenko, V. V. Three-webs over an algebra whose curvature is a zero divisor. (Russian) 81f:53013

Three-webs over some classes of commutative associative algebras. (Russian) 81j:53022

secondary classifications:

Griffiths, Phillip A. (with Harris, Joseph) Algebraic geometry and local differential geometry. (81k:53004)

Harris, Joseph See Griffiths, Phillip A., (81k:53004)

Koch, Richard Parallelogrammetze. (English summary) (81c:53023)

Lazareva, V. B. Three-webs on a two-dimensional surface in a triaxial space. (Russian) (81m:53012)

Sel'djukov, E. K. Geometry of nets invariantly adjoint to given orthogonal nets on V_5 in E_5 . (Russian) (81f:53004)

Žigova, T. B. A quasigroup generated by a class of two-parameter families of two-dimensional planes in P_5 . (Russian) (81f:53009)

53A99 None of the above, but in this section

Neagu, Alexandru C. Theoretical aspects in the moving frame method. (Italian summary) 81d:53013

Radiobov, G. A. Three-dimensional spaces of supporting vector densities, admitting a homothety group P_4 with an abelian subgroup P_3 . (Russian. Tajiki summary) 81b:53018

secondary classifications:

Grafarend, Erik W. (with Mueller, Ivan I.; Papo, Haim B.; Richter, Burghard)

Concepts for reference frames in geodesy and geodynamics: the reference directions. (81b:86005)

Mueller, Ivan I. See Grafarend, Erik W.; et al., (81b:86005)

Papo, Haim B. See Grafarend, Erik W.; et al., (81b:86005)

Richter, Burghard See Grafarend, Erik W.; et al., (81b:86005)

53Bxx Local differential geometry

53B05 Linear and affine connections

Cheng, Kuo Shun (with Ni, Wei Tou) Conditions for the local existence of metric in a generic affine manifold. 81c:53021

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Ni, Wei Tou See Cheng, Kuo Shun, 81c:53021

Nicolescu, Liviu (with Martin, Mircea) Einige Bemerkungen über die

Deformationsalgebra zweier linearer Zusammenhänge. 81a:53017

Popovici, Iulian (with Turtoi, Adriana) Sur les espaces bidimensionnels à connexion constante. I. 81d:53014

Ryžkov, V. V. On the theory of n -conjugate nets in affinely connected spaces. (Russian. Georgian and English summaries) 81m:53021

Sakamoto, Kunio (with Takemura, Yoshiya) On almost contact structures belonging to a CR-structure. 81f:53014

Takemura, Yoshiya See Sakamoto, Kunio, 81f:53014

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Vedernikov, S. V. Geometry of a fundamental space. (Russian) 81k:53011

secondary classifications:

Luk, Hing Sun Affine connections and defining functions of real hypersurfaces in C^n . (81j:53037)

Nieh, H. T. Gauss-Bonnet and Bianchi identities in Riemann-Cartan type gravitational theories. (81k:83038)

Pandey, S. N. On plane wave-like solutions of Finzi's nonsymmetric unified field theory. (81f:83038)

Vel'skin, V. N. Some special fields of pseudonormals on surfaces in Euclidean space. (Russian) (81j:53002)

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Gupta, K. K. See Pandey, H. D., 81c:53022

Kumar, Avdesh Some theorems on special conformal motion and projective curvature collineation in projective symmetric Finsler space. 81h:53012

Pandey, H. D. (with Gupta, K. K.) Some special properties of $R_{\alpha\beta}^{\gamma\delta}$ and $Q_{\alpha\beta}^{\gamma\delta}$ in recurrent Finsler spaces. 81c:53022

Ševčenko, Ju. I. Parallel transport on surfaces. (Russian) 81j:53017

Stojiljarov, A. V. The dual theory of regular distributions of hyperplane elements in a space with projective connection. I. (Russian) 81j:53023a

The dual theory of regular distributions of hyperplane elements in a space with projective connection. II. (Russian) 81j:53023b

secondary classifications:

Markowitz, Michael J. Holomorphic affine and projective connections of hyperbolic type. (81d:32017)

53B15 Other connections

Amici, Oriella M. (with Casciaro, Biagio C.) Some considerations on the relations between (h, h') -linear connections and first-order derivations of the same kind. (Italian. English summary) 81c:53009

Atanasiu, Gheorghe Sur certaines classes spéciales de connexions presque complexes. (English summary) 81g:53010

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Casciaro, Biagio C. See Amici, Oriella M., 81c:53009

Colonna, F. (with Falcitelli, Maria) Specialized second-order connection of type $((0, 0), (0, 0))$. (Italian) 81c:53010

Etayo, José J. Lifts of derivations and differentiations to the tangent bundle. 81h:53013

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Nijencu, Cătălina On conformal curvature tensor relative to the metric semisymmetric connection. (Romanian summary) 81k:53013

Popovici, Iulian Sur les espaces à connexion constante attachés aux algèbres de Jordan

simples et centrales. I. **81h:53014**

- Papac, Elena N. On the connection objects of second order. **81m:53022**
 Yousef, Nabil Labib Distribution de nullité du tenseur de courbure d'une connexion. (English summary) **81m:53023**
 Žlahtičević, S. Motions in central puncter spaces. (Russian. Lithuanian and English summaries) **81a:53019**

secondary classifications:

- Gupta, K. K. See Pande, H. D., **(81h:53025)**
 Pande, H. D. (with Gupta, K. K.) Bianchi's identities in a Finsler space with nonsymmetric connection. **(81h:53025)**
 Rizza, Giovanni Battista A boundary method in differential geometry. (Italian. English summary) **(81f:53021)**
 Womphrik, Huns J. Yang-Mills magnetic charge and the equation of motion of a Yang-Mills particle in general relativity. **(81m:83011)**

53B20 Local Riemannian geometry

- Aldersley, S. J. (with Horndeski, Gregory Walter) Conformally invariant tensorial concomitants of a pseudo-Riemannian metric. **81j:53024**
 Awasthi, G. D. (with Misra, M. M.) Swerve of a congruence of curves in a Riemannian manifold. **81e:53011**
 Beskovrovainaja, L. L. A-deformation of a surface of a three-dimensional Riemann space with stationary lengths of asymptotic lines. (Russian) **81a:53020**
 Boja, Valentin Sur l'index de courbure d'un vecteur tangent. **81h:53014**
 Boyer, Charles P. (with Kalmns, E. G.; Miller, Willard, Jr.) R-separable coordinates for three-dimensional compact Riemannian spaces. **81h:53015**
 Čupahin, A. P. Nontrivial conformal groups in Riemannian spaces. (Russian) **81h:53015**
 Derdziński, A. The local structure of essentially conformally symmetric manifolds with constant fundamental function. I. The elliptic case. **81g:53011**
 DeTurck, Dennis M. The equation of prescribed Ricci curvature. **81f:53015**
 Dielepo, G. D. Recurrent, projectively recurrent, concircularly recurrent and conformally recurrent B-spaces. (Bulgarian. Russian and English summaries) **81m:53024**
 Gauchman, Hillel On locally symmetric vector fields on Riemannian manifolds. **81j:53025**
 Gębarowski, Andrzej On decomposable conformally recurrent Riemannian spaces. **81f:53016**
 Golubjatnikov, V. P. A condition for uniqueness of shortest paths. (Russian) **81m:53025**
 Gribkov, I. V. Incorrectness of a theorem of Schur. (Russian) **81h:53016**
 Grycak, W. On generalized curvature tensors and symmetric (0, 2)-tensors with a symmetry condition imposed on the second derivative. **81g:53012**
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 Hotol, Marian On null geodesic collineation in conformally 2-recurrent Riemannian manifolds. **81a:53021**
 Kalmns, E. G. (with Miller, Willard, Jr.) Killing tensors and variable separation for Hamilton-Jacobi and Helmholtz equations. **81m:53026**
 See also Boyer, Charles P.; et al., **81h:53015**
 Kimura, Morishige On the second maximum number of all linearly independent quadratic first integrals of the geodesic equations in Riemannian spaces. **81f:53017**
 Koch, Richard Parallelogrammetze. (English summary) **81e:53023**
 Lefbowitz, Elhanan Symmetric vectors and Ricci directions. **81a:53022**
 Manor, S. S. Lie derivatives and deviation equations in Riemannian spaces. **81a:53023**
 Miller, Willard, Jr. See Boyer, Charles P.; et al., **81h:53015** and Kalmns, E. G., **81m:53026**
 Mishra, R. S. (with Singh, Shree Dhar) On pseudo H-curvature tensors in a differentiable manifold V_{2n} equipped with KH-structure. **81h:53019**
 Misra, M. M. See Awasthi, G. D., **81e:53011**
 Morvan, Jean-Marie Variétés de type spécial. Champs presque-qu courants. **81m:53027**
 Nicolescu, Liviu Sur un théorème de Levi-Civita-Vranceanu. **81e:53024**
 Sur la représentation géodésique des espaces de Riemann. **81e:53018**
 Patterson, E. M. Critical metrics and harmonic metrics. **81a:53024**
 Petrov, Ju. G. A class of conformally Euclidean spaces. (Russian) **81e:53025**
 Petrović, Vojislav Product-concircular curvature tensor. **81d:53015**
 Prvanović, Mileva Product semisymmetric connections of the locally decomposable Riemannian spaces. **81m:53028**
 Rai, S. P. See Sinha, B. B., **81h:53017**
 Roman, A. Parallélisme relatif dans une configuration Myller dans des espaces de Riemann. **81m:53029**
 Sakaguchi, Toshio On generalized S-curvature-like tensors on some Sasakian manifolds. **81f:53019**
 Šapovalov, V. N. Stückel spaces. (Russian) **81d:53016**
 Sato, Shizuko On holomorphically subprojective transformations. **81e:53026**
 Sazanov, V. S. Generalization of a theorem of É. Cartan. (Russian) **81g:53013**
 Singh, Shree Dhar See Mishra, R. S., **81h:53019**
 Sinha, B. B. (with Rai, S. P.) Infinitesimal affine transformations of the cotangent bundles with Sasaki metric. **81h:53017**
 Slajnikov, N. S. ★Геометрические отображения римановых пространств. (Russian) [Geodesic mappings of Riemannian spaces] **81g:53014**
 Venzl, Paolo On geodesic mappings in Riemannian and pseudo-Riemannian manifolds. **81m:53030a**
 Geodätische Abbildungen in Riemannscher Mannigfaltigkeiten. **81m:53030b**
 Geodätische Abbildungen mit $\lambda_p = \Delta g_p$. **81m:53030c**
 Vilms, Jank On curvature operators of bounded rank. **81m:53031**
 Zoltek, Stanley M. A normal form for a special class of curvature operators. **81f:53018**

secondary classifications:

- Anandan, Jeeva S. Quantum interference and the gravitational field. **(81g:83052)**
 Baumgart, J. Eine rein Hamiltonsche Formulierung der Mechanik von Systemen mit holonomen Bindungen. (English summary) **(81d:70016)**
 Chen, Bang-yen (with Vanhecke, Lieven) Geodesic spheres and locally symmetric spaces. **(81e:53026)**
 Dietz, W. (with Rüdiger, R.) Shearfree congruences of null geodesics and Killing tensors. **(81j:83018)**
 Ferrarese, Giorgio Riemannian dynamics in a holonomic system with internal structure. I. (Italian. English summary) **(81d:70012a)**
 Galvão, Carlos A. P. Classical $\frac{1}{2}$ spin particles interacting with gravitational fields: a supersymmetric model. **(81h:83007)**
 Gray, Alfred Mean values in Riemannian manifolds. **(81i:58053)**
 (with Vanhecke, Lieven) Riemannian geometry as determined by the volumes of small geodesic balls. **(81i:53038)**
 Kalmns, E. G. (with Miller, Willard, Jr.) Nonorthogonal separable coordinate systems for the flat 4-space Helmholtz equation. **(81e:58065)**
 (with Manocha, H. L.; Miller, Willard, Jr.) The Lie theory of two-variable hypergeometric functions. **(81e:33010)**
 Manocha, H. L. See Kalmns, E. G.; et al., **(81e:33010)**
 McIntosh, C. B. G. Symmetries and exact solutions of Einstein's equations. **(81m:83025)**
 Miller, Willard, Jr. See Kalmns, E. G.; et al., **(81e:33010)** and Kalmns, E. G., **(81e:58065)**
 Narain, D. See Sinha, B. B., **(81e:53040)**
 Palmer, T. N. Gravitational energy-momentum: the Einstein pseudotensor reexamined. **(81d:83043)**
 Rüdiger, R. See Dietz, W., **(81j:83018)**
 Šapovalov, V. N. Symmetry and the separation of variables in a second-order linear differential equation. I. (Russian) **(81g:35011a)**
 Symmetry and the separation of variables in a second-order linear differential equation. II. (Russian) **(81g:35011b)**
 Shoo, Mohd. See Sinha, B. B., **(81e:53039)**
 Sinha, B. B. (with Shoo, Mohd.) Curvature tensor of special quarter symmetric metric connexion in an almost contact metric manifold. **(81e:53039)**
 (with Narain, D.) On almost paracontact manifold. **(81e:53040)**
 Sokutseva, M. R. Some cases of a mapping of two-dimensional surfaces. (Russian) **(81h:53004)**
 Sperb, René P. Maximum principles and nonlinear elliptic problems. **(81f:35044)**
 Tokunaga, Masayoshi On the three-dimensional impeller with loxodromic curved blade. **(81i:76012)**
 Vanhecke, Lieven See Chen, Bang-yen, **(81e:53026)** and Gray, Alfred, **(81i:53038)**

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- Roman, A. Configurations Myller $\mathfrak{M}(C; \xi, \eta; T^{-1})$ dans des espaces riemanniens. **81e:53012**
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- Safko, John L. See Carlson, George T., Jr., (81g:83005) and Carlson, George T., Jr., (81k:83030)
- Salmistraro, Franco. See Catenacci, Roberto; et al., (81k:83022)
- Sattar, A. A generalized equation of the motion of a charged particle in a gravitational electromagnetic field. (Russian. Tajiki summary) (81g:83038)
- Shima, Kazumari (with Kasuya, Masahiro) Topology of zero Riemann curvature flat space in supergravity. (81f:83031)
- Silva, M. A. (with Som, M. M.) Complexified Vaidya's metric. (81c:83015)
- Singh, Gulab. See Singh, K. P., (81f:83026)
- Singh, K. P. (with Singh, Gulab) Symmetry properties of certain gravitational space-times. (81f:83026)
- Singh, T. (with Yadav, R. B. S.) An anisotropic magnetohydrodynamic universe in general relativity. (81f:83042)
- Smallwood, J. The Cauchy problem in general relativity. III. On locally imbedding a family of null hypersurfaces. (81k:83010)
- Smart, Larry L. See Eardley, Douglas M., (81h:83030)
- Sodano, P. See Martelloni, Maurizio, (81h:83044)
- Soffel, Michael (with Müller, Berndt; Greiner, Walter) Radiation and the structure of space-time. (81f:83018)
- Som, M. M. See Silva, M. A., (81c:83015)
- Sotkov, G. M. (with Zaikov, R. P.) Quantum dynamics of the relativistic membrane. (81a:81145)
- Stelle, K. S. (with West, P. C.) Algebraic understanding of constraints. (See 81j:83001)
- Stoeger, William R. (with Yasskin, Philip B.) Can a macroscopic gyroscope feel torsion? (81d:83011)
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- Strobel, H. Relativistic analogs of the phase space and the Liouville theorem of classical statistics. (81h:83010)
- Taubes, Clifford Henry. Solution of the almost-Killing equation and conformal almost-Killing equation in the Kerr spacetime. (81c:83025)
- Tominatsu, Akira. On the soliton solutions of stationary, axis-symmetric gravitational fields. (81b:83001)
- Treder, Hans-Jürgen. Singularitäten in der Allgemeinen Relativitätstheorie. (English summary) (81d:83013)
- Verdaguer, Enric. Approximate Poincaré invariance of the post-Newtonian metric tensor and gauge conditions. (81m:83019)
- Vishveshwara, C. V. See Dhurandhar, S. V.; et al., (81g:83036)
- Walwright, J. (with Marshman, B. J.) Some exact cosmological models with gravitational waves. (81h:83022)
- West, P. C. See Stelle, K. S., (See 81j:83001)
- Wilkes, J. M. (with Zund, Joseph D.) Maxwell's equations and Méray's theorem. (81e:78017)
- Winch, Volkmar. Charakterisierung von Raum-Zeit-Mannigfaltigkeiten durch Relationen zwischen ihren Krümmungsspinoren unter Benutzung eines modifizierten Newman-Penrose-Kalküls. (81j:83019)
- Yadav, R. B. S. See Singh, Tarkeshwar, (81f:83042)
- Yasskin, Philip B. (with Stoeger, William R.) Propagation equations for test bodies with spin and rotation in theories of gravity with torsion. (81d:83049)
See also Stoeger, William R., (81d:83011)
- Zaikov, R. P. See Sotkov, G. M., (81a:81145)
- Zelatorov, V. A. Tensor description of half-integer spin fields. (Russian) (81d:81040)
- Zou, Zhen Long. See Liu, Yu Fen, (81b:83003)
- Zund, Joseph D. See Wilkes, J. M., (81e:78017)

33B99 None of the above, but in this section

- Sotkov, B. N. The structure of tensor bundles. I. (Russian) 81b:53029
- Zolich, Stanley M. Nonnegative curvature operators: some nontrivial examples. 81m:53037

secondary classifications:

- Ivanov, V. G. Spaces with generalized parallelism. (Russian) (81m:53055)
- Maricano, F. R. Sur les systèmes non holonomes. (81c:70008)
- Shujakov, N. S. ★Геодезические отображения римановых пространств. (Russian) [Geodesic mappings of Riemannian spaces] (81g:53014)

53Cxx Global differential geometry [See also 51H25, 58-XX; for related bundle theory, see 55Rxx, 57Rxx.]

secondary classifications:

- (Einstein, Albert) See General relativity, (81i:83002)
- (Hawking, S. W.) See General relativity, (81i:83002)
- (Israel, W.) See General relativity, (81i:83002)
- Anniversary:
Birth of Albert Einstein ★General relativity. (81i:83002)
- General relativity ★General relativity. (81i:83002)

53C05 Connections

- Albu, Ion D. Quelques résultats sur les connexions linéaires k -plates. 81h:53029
- Aleksandrov, N. D. Affinor structures on vector bundles. I. (Russian) 81k:53028
- Berezin, F. A. Instantons and Grassmann manifolds. (Russian) 81a:53032
- Bourguignon, Jean Pierre. Groupe de jauge élargi et connexions stables. 81m:53038
- Burdjau, Ilie. Une application des systèmes homogènes de K. Yamaguti dans la géométrie différentielle. (Romanian summary) 81k:53029
- Eglazarsky, K. M. Affine connections on a Grassmann manifold. (Russian) 81k:53030
- Falcitelli, Maria (with Pastore, Anna Maria) On the pseudoconnections that preserve an almost complex structure. (Italian. English summary) 81d:53022
(with Pastore, Anna Maria) On the projectively equivalent pseudoconnections. (Italian. English summary) 81m:53039
- Farinola, Angela (with Leuci, Margherita) On the pseudoconnections of the first kind on a differentiable fiber space. (Italian) 81k:53031
- Gromov, Mikhail L. (with Lawson, H. Blaine, Jr.) Spin and scalar curvature in the presence of a fundamental group. I. 81g:53022
- Kock, Anders (with Reyes, Gonzalo E.) Connections in formal differential geometry. 81h:53030
- Lawson, H. Blaine, Jr. See Gromov, Mikhail L., 81g:53022
- Locomte, Pierre B. A. A generalization of a theorem on affine transformations. 81g:53023
- de León, Manuel. Sprays and connections on the tangent bundle of order 2. 81i:53031
- Leuci, Margherita. See Farinola, Angela, 81k:53031
- Lichnerowicz, André. Connexions et existence de \star -produits sur une variété symplectique. (English summary) 81j:53035
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- Luk, Hing Sun. Affine connections and defining functions of real hypersurfaces in C^n . 81j:53037
- Martin, Mircea. Invariant and quasi-invariant deformation algebras. 81f:53020
- Mishra, R. S. (with Pandey, S. N.) On quarter symmetric metric F -connections. 81j:53038
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- Oproiu, Vasile. The d -characteristic classes of the complex vector bundles. 81g:53024
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- Pastore, Anna Maria. See Falcitelli, Maria, 81d:53022 and Falcitelli, Maria, 81m:53039
- Radičov, G. A. Three-dimensional spaces of support vector densities with a group of homotheties P , and motions G , ($r < 4$). (Russian) 81c:53034
- Radzikowski, Zbigniew. On a certain interpretation of linear connection on a differentiable manifold M . (Polish and Russian summaries) 81c:53019
- Reyes, Gonzalo E. See Kock, Anders, 81h:53030
- Rizza, Giovanni Battista. A boundary method in differential geometry. (Italian. English summary) 81f:53021
- Rund, Hanno. Decompositions of connection and curvature forms. 81h:53031
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- Rybnikov, A. K. Osculatory spaces and connections. I. (Russian. English summary) 81g:53025a
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- Sakane, Yumuke (with Takeuchi, Masaru) Geometry of Yang-Mills fields—introduction to lectures by Prof. Bourguignon. (Japanese) 81k:53032
- Sandovici, Profira. The nullity spaces of the curvature of a derivation law in a vector bundle. (Romanian. English summary) 81g:53026
- Schaffly, Roger. Universal connections. 81f:53022
- Spelivich, V. Generalization of the concept of a connexion in a vector bundle. (Russian) 81a:53034
- Šurygin, V. V. Totally geodesic subspaces in spaces over algebras. (Russian) 81i:53032
- Takeuchi, Masaru. See Sakane, Yumuke, 81k:53032
- Talasila, V. S. \mathbb{R} -planar transformation of a connection in real realizations of manifolds over algebras. (Russian) 81e:53020
- Tarini, Marian. Equivalent connections on G -structures of order 2. (Romanian. English summary) 81m:53041

secondary classifications:

- Actor, Alfred. Elliptic function methods in ϕ^4 theory and Yang-Mills theory. (81h:81013)
- Classical solutions of SU(2) Yang-Mills theories. (81h:81014)
- Affleck, Ian. Testing the instanton method. (81e:81005)
- Ambjørn, J. (with Felsager, B.; Olesen, P.) Kinematics of periodic structures in SU(N) gauge theories. (81m:81040)
- Arfael, H. Vanishing of the energy-momentum tensor in Euclidean Yang-Mills theories. (81d:81046)

- Asorey, M. (with Boya, L. J.) Electromagnetism without monopoles is possible in nontrivial $U(1)$ -fibre bundles. (81m:81068)
- Atiyah, Michael ★ Geometry on Yang-Mills fields. (81a:81047)
- Geometrical aspects of gauge theories. (81i:81066)
- Balachandran, A. P. (with Marmo, G.) When does a zero field tensor imply a quantized topological charge? (81g:81062)
- Banks, T. (with Casher, A.) Constant classical solutions of the $SU(N)$ Yang-Mills field equations for $N = \infty$. (81k:81053)
- (with Yankielowicz, S.; Schwimmer, Adam) Anomaly constraints in chiral gauge theories. (81j:81063)
- Benn, I. M. (with Dereli, T.; Tucker, R. W.) Gauge field interactions in spaces with arbitrary torsion. (81k:83029)
- Bleeker, David D. (with Wilson, Leslie C.) Splitting the spectrum of a Riemannian manifold. (81j:58077)
- Boya, L. J. See Asorey, M., (81m:81068)
- Brihaye, Y. (with Nuyts, J.) Invariance properties of Yang equations and applications. (81d:81047)
- Casher, A. See Banks, T., (81k:81053)
- Chakrabarti, Amitabha (with Comtet, A.; Viswanathan, K. S.) Static, self-dual, finite action $SU(3)$ gauge fields in the de Sitter space. (81k:81073)
- Chodos, Alan (with Moncrief, Vincent) Geometrical gauge conditions in Yang-Mills theory: some nonexistence results. (81d:81060)
- Christ, N. H. (with Jackiw, R.) Equality of magnetic charge and Pontryagin index for Yang-Mills dyons. (81i:81053)
- Comtet, A. See Chakrabarti, Amitabha; et al., (81k:81073)
- Comtes, Alain C^* algèbres et géométrie différentielle. (English summary) (81c:46053)
- Cromblin, C. A simple and complete Lorentz-covariant gauge condition. (81i:81054)
- (Cross, J. J.) See Ver Eecke, Paul, (81d:80001)
- D'Adda, A. (with D'Auria, R.; Fré, P.; Regge, T.) Geometrical formulation of supergravity theories on orthosymplectic supergroup manifolds. (81j:83040)
- Daniel, M. (with Viallet, C.-M.) The geometrical setting of gauge theories of the Yang-Mills type. (81b:81015)
- De Silveira, Adel Hamiltonian of the massive Yang-Mills theory. (81i:81048)
- D'Auria, R. See D'Adda, A.; et al., (81j:83040)
- Davis, W. R. See Norris, L. K., (81c:83023)
- Delcrét, Anton On higher order point singularities of some geometric object fields. (Russian summary) (81k:58002)
- Dereli, T. See Benn, I. M.; et al., (81k:83029)
- Din, A. M. (with Zakrzewski, W. J.) Stability properties of classical solutions to nonlinear σ models. (81d:81074)
- (with Zakrzewski, W. J.) Properties of general classical CP^{n-1} solutions. (81i:81068)
- Drinfel'd, V. G. (with Manin, Ju. I.) Instantons and sheaves on CP^3 . (81k:14014)
- (with Manin, Ju. I.) Instantons and sheaves in CP^3 . (Russian) (81b:14007)
- Duane, S. Generalizations of CP^{n-1} with nonabelian gauge symmetry in $2 + \epsilon$ dimensions. (81h:81003)
- Duff, M. J. (with Isham, C. J.) Self-duality, helicity and coherent states in nonabelian gauge theories. (81i:81055)
- Egiazarian, K. M. The structure of affine connections and tensor fields on a higher order tangent bundle. (Russian) (81a:58004)
- Fava, Franco Derivations of graded algebras and nonlinear connections of arbitrary order. (Italian. English summary) (81m:53069)
- Felsager, B. See Ambjørn, J.; et al., (81m:81040)
- Forger, M. Gauge theories, instantons and algebraic geometry. (81i:81056)
- Fré, P. See D'Adda, A.; et al., (81j:83040)
- Freund, Peter G. O. Topological and phenomenological aspects of gravity and supergravity. (81g:83030)
- Friedman, John L. (with Sorkin, Rafael D.) Dyon spin and statistics: a fiber-bundle theory of interacting magnetic and electric charges. (81c:81065)
- Fujitara, Hidenori Affine structures of some solvable Lie groups. (81m:22016a)
- Affine structures of some solvable Lie groups. (81m:22016b)
- Gaiduk, A. V. Translation-invariant gauge fields. (Russian. English summary) (81k:81056)
- Georgescu, Vladimir On the operator of symmetric differentiation on a compact Riemannian manifold with boundary. (81m:58002)
- Ghika, G. (with Vîşinescu, M.) Gribov vacuum copies in terms of harmonic maps. (81d:81051)
- Gibbons, G. W. (with Perry, Malcolm J.) New gravitational instantons and their interactions. (81c:83027)
- Gresh, Werner (with Petry, Herbert-Rainer) On the lifting of structure groups. (81d:55019)
- Guo, Han Ying (with Zhang, Li Ning) The actions of gauge fields for gravitation and their principal bundle formulation. (Chinese) (81j:83031)
- Gürsey, Feza (with Jafarizadeh, M. A.; Tze, H. C.) Quaternionic multi $S^4 \approx HP(1)$ gravitational and chiral instantons. (81c:83006)
- Hacyan, S. Gravitational instantons in \mathbb{R} -spaces. (81m:83020)
- Hamamoto, Shinji Nonlinear realization of graded conformal group. (81g:83061)
- Harnad, John (with Vinet, L.; Shnider, Steven) Solution to Yang-Mills equations on M^4 invariant under subgroups of $O(4, 2)$. (81c:81070)
- Hitchin, N. J. Linear field equations on self-dual spaces. (81i:81057)
- Honda, Morihito Fiber bundle analysis of global feature of gauge field theory. (81d:81052)
- Hosoya, Akio Duality for the Lorentz force in loop space. (81d:81053)
- Houston, P. (with O'Raiartaigh, L.) On the zeros of the Higgs field for axially symmetric multimonocone configurations. (81d:81054)
- Isenberg, James A. (with Yasskin, Philip B.) Twistor description of non-self-dual Yang-Mills field. (81g:32023)
- Isham, C. J. See Duff, M. J., (81i:81055)
- Jack, I. Multi-instanton determinants for tensor product gauge fields. (81i:81073)
- Jackiw, R. Bifurcation and stability in Yang-Mills theory with sources. (81k:81059)
- Introduction to the Yang-Mills quantum theory. (81k:81077)
- See also Christ, N. H., (81i:81053)
- Jafarizadeh, M. A. See Gürsey, Feza; et al., (81c:83006)
- Kazama, Yoichi (with Savit, Robert) Dual formulation of nonabelian gauge theories. (81g:81052)
- Kowalski, Oldrich Affine reductive spaces. (81j:53051)
- Lecomte, Pierre B. A. Note on the linear endomorphisms of a vector bundle. (81m:58014)
- Madore, J. (with Richard, J. L.; Stora, R.) $F = *F$, a review. (81d:81055)
- Manin, Ju. I. See Drinfel'd, V. G., (81b:14007) and Drinfel'd, V. G., (81k:14014)
- Marmo, G. See Balachandran, A. P., (81g:81062)
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- Maskawa, Toshihide (with Nakajima, Hideo) Structure of the gauge transformation group in the square integrable space and Gribov's ambiguity in the Coulomb gauge. (81b:81020)
- Matsuoka, Takashi (with Morita, Shigeyuki) On characteristic classes of Kähler foliations. (81b:57025)
- Mayer, Dieter H. (with Viswanathan, K. S.) On the vacuum structure of an $SU(2)$ Yang-Mills theory. (81g:81071)
- Miglietta, F. Covariant derivatives without gauge fields. (81i:81061)
- Minami, Masatugu Dirac's monopole and the Hopf map. (81m:81042)
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- Morita, Shigeyuki See Matsuoka, Takashi, (81b:57025)
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- Norris, L. K. (with Davis, W. R.) The infinitesimal homology group structure of Einstein-Maxwell space-times. (Italian and Russian summaries) (81c:83023)
- Nowakowski, Jerzy (with Trautman, Andrzej) Natural connections on Stiefel bundles are sourceless gauge fields. (81i:58020)
- Nuyts, J. See Brihaye, Y., (81d:81047)
- Olesen, P. See Ambjørn, J.; et al., (81m:81040)
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- Petry, Herbert-Rainer See Gresh, Werner, (81d:55019)
- Presnajder, P. Extraction of ignorable variables from the Hamiltonian of the Yang-Mills field. (81k:81065)
- Rawnsley, J. H. Self-dual Yang-Mills fields. (81g:53054)
- Rebbi, Claudio Interaction of superconducting vortices. (81k:81117)
- Regge, T. See D'Adda, A.; et al., (81j:83040)
- Reina, C. (with Martellini, Maurizio; Sodano, P.) A first order system of differential equations for covariant σ models. (81i:81065)
- Reinhart, Bruce L. Foliations and second fundamental forms. (81j:58009)
- Richard, J. L. See Madore, J.; et al., (81d:81055)
- Savit, Robert See Kazama, Yoichi, (81g:81052)
- Schneider, Rolf Kinematic measures for sets of colliding convex bodies. (81k:52012)
- Schwimmer, Adam See Banks, T.; et al., (81j:81063)
- Scull, Sidney C. A vanishing theorem for fermion fields. (81k:22013)
- Shnider, Steven See Harnad, John; et al., (81i:81070)
- (Smith, F. R.) See Ver Eecke, Paul, (81c:58001)
- Sodano, P. See Reina, C.; et al., (81f:81065)
- Sorkin, Rafael D. See Friedman, John L., (81c:81065)
- Stelle, K. S. (with West, P. C.) Spontaneously broken de Sitter symmetry and the gravitational homology group. (81c:83038)
- Stora, R. See Madore, J.; et al., (81d:81055)
- Štíukar, V. L. Invariant connections and metrics on homogeneous spaces corresponding to global triples. (Russian) (81h:53050)
- Tod, K. P. (with Ward, R. S.) Self-dual metrics with self-dual Killing vectors. (81c:83011)
- Trautman, Andrzej See Nowakowski, Jerzy, (81a:58020)
- Tucker, R. W. See Benn, I. M.; et al., (81k:83029)
- Tze, H. C. See Gürsey, Feza; et al., (81c:83006)
- Vassiliou, Efstatios Affine transformations of Banachable bundles of frames. (81i:58012)
- On the homology theorem. (Greek summary) (81c:58011)
- (f, g, h)-related connections and Liapunoff's theorem. (81d:58013)
- Ver Eecke, Paul ★ Calculus of jets and higher order connections. (81c:58001)
- Vernikov, M. B. Determination of a connection compatible with a symplectic structure on a differentiable manifold. (Russian) (81m:33050)
- Viallet, C.-M. See Daniel, M., (81b:81015)
- Vinet, L. See Harnad, John; et al., (81i:81070)
- Vîşinescu, M. See Ghika, G., (81d:81051)
- Viswanathan, K. S. See Mayer, Dieter H., (81g:81071) and Chakrabarti, Amitabha; et al., (81k:81073)
- Ward, R. S. The self-dual Yang-Mills and Einstein equations. (81h:81076)
- See also Tod, K. P., (81c:83011)
- West, P. C. See Stelle, K. S., (81c:83038)
- Wilson, Leslie C. See Bleeker, David D., (81j:58077)
- Witten, Edward Some comments on the recent twistor space constructions. (81h:81077)
- Yamaguchi, Satoru On complete affinely flat structures of some solvable Lie groups. (81m:22014)
- Supplements to: "On complete affinely flat structures of some solvable Lie groups" [Mem. Fac. Sci. 33 (1979), no. 2, 209-218; MR 81m:22014] and an application to nilpotent Lie groups of dimension < 5 . (81m:22015)
- Yankielowicz, S. See Banks, T.; et al., (81j:81063)
- Yasskin, Philip B. See Isenberg, James A., (81g:32023)
- Zakrzewski, W. J. See Din, A. M., (81d:81074) and Din, A. M., (81i:81068)
- Zhang, Li Ning See Guo, Han Ying, (81j:83031)
- Zhou, Guang Zhao On the vacuum of the pure gauge fields on coset. (81k:81067)

53C10 *G*-structures

- Amato, Francesco On the *G*-structures of the plane. (Italian. French summary) 81c:53035
- Amores, A. M. Vector fields of a finite type *G*-structure. 81k:53033
- Gruško, P. Ja. Pseudostructures and some cases of their reduction to geometric structures. (Russian) 81a:53035
- Tricceri, Franco Strongly integrable *G*-structures. (Italian. English summary) 81a:53036

secondary classifications:

- Goldschmidt, Hubert (with Spencer, Donald) On the nonlinear cohomology of Lie equations. III. (81m:58088a)
- (with Spencer, Donald) On the nonlinear cohomology of Lie equations. IV. (81m:58088b)
- Goldschmidt, Y. Y. (with Witten, Edward) Conservation laws in some two-dimensional models. (81b:81024)
- Hou, Bo Yu (with Wang, Yu Bin; Hou, Bo Yuan; Wang, Pei) Non-self-dual instantons of two-dimensional CP(N) ($N > 2$) chiral theory. (81e:81099)
- Hou, Bo Yuan See Hou, Bo Yu; et al. (81e:81099)
- Neuge, Alexandru C. Theoretical aspects in the moving frame method. (Italian summary) (81d:53013)
- A geometrical interpretation for the holonomic prolongations of a principal fibre bundle. (Romanian summary) (81d:58006)
- Šuprov, B. N. The structure of tensor bundles. I. (Russian) (81b:53029)
- Spencer, Donald See Goldschmidt, Hubert, (81m:58088a) and Goldschmidt, Hubert, (81m:58088b)
- Thierry-Mieg, Jean Explicit classical construction of the Faddeev-Popov ghost field. (Italian and Russian summaries) (81e:81078)
- Timoshenko, V. V. Three-webs over some classes of commutative associative algebras. (Russian) (81j:53022)
- Wang, Pei See Hou, Bo Yu; et al. (81e:81099)
- Wang, Yu Bin See Hou, Bo Yu; et al. (81e:81099)
- Witten, Edward See Goldschmidt, Y. Y., (81b:81024)

53C12 Foliations [See also 57R30, 57R32.]

53C15 Almost complex, contact, symplectic, almost product structures, etc.

- Agarwal, A. K. See Upadhyay, M. D., 81m:53049
- Agnihotri, R. K. See Singh, K. D., 81d:53025
- Barros, Manuel On the almost Hermitian structures on a differentiable manifold. 81m:53042
- Cattani, Carlo See Ferrarese, Giorgio, 81m:53044
- Cielieba, Waldemar The geometry of surfaces in parasymplectic spaces. 81m:53043
- Crumeyrolle, Albert Construction de déformations d'algèbres au-dessus d'une variété symplectique. (English summary) 81j:53039
- Dauzat, Pierre Invariants homotopiques attachés aux fibres symplectiques. (English summary) 81e:53021
- Dekrét, Anton On bilinear structures on differentiable manifolds. 81b:53033
- Deshmukh, Sharief (with Farzadi, Ghaffar) (φ, ξ, η) -connections in almost paracontact manifold. 81j:53040
- Dimlev, S. G. (with Muškarov, O. K.) Fonctions presque pluriharmoniques. 81g:53027
- Eum, Sang Seup (with Ki, U Hang; Kim, Un Kyu; Kim, Young Ho) Submanifolds of codimension 3 of a Kählerian manifold. I. 81h:53034
- Farzadi, Ghaffar See Deshmukh, Sharief, 81j:53040
- Ferrarese, Giorgio (with Cattani, Carlo) Technique of projection and covariant differentiation adapted to a quasiproduct Riemannian structure. (Italian. English summary) 81m:53044
- Fujimura, Shigeyoshi Q -projective transformations of an almost quaternion manifold. II. 81c:53036
- Ganchev, G. T. Almost Hermitian manifolds similar to the complex space forms. 81b:53030
- Gębarowski, Andrzej On normal contact metric manifolds. 81f:53023
- Georgiev, Georgi Iv. Sur les variétés à structure presque complexe. 81f:53033
- Gray, Alfred (with Hervella, Luis M.) The sixteen classes of almost Hermitian manifolds and their linear invariants. 81m:53045
- Greene, Robert E. Complete metrics of bounded curvature on noncompact manifolds. 81h:53035
- Gromov, Mikhael L. (with Lawson, H. Blaine, Jr.) The classification of simply connected manifolds of positive scalar curvature. 81h:53036
- Gupta, V. C. See Upadhyay, M. D., 81d:53026
- Hervella, Luis M. See Gray, Alfred, 81m:53045
- Hieppo, Sönke Eine innere Kennzeichnung der verzerrten Produkte. 81a:53037
- Husain, Sayeed Izhar See Sharfuddin, A., 81c:53023
- Ishihara, Shigeru (with Konishi, Mariko) Real contact 3-structure and complex contact structure. 81d:53023
- Kanemaki, Shōji Hermitian manifolds with almost product structures. 81f:53024
- Kato, Masahide Compact differentiable 4-folds with quaternionic structures. 81h:53037
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- Mishra, R. S. Submanifolds of 3-structure metric manifolds. (81g:53042)
- Structures in submanifolds of an almost Hermite manifold. (81g:53043)
- Morsy, Monir S. The geometrical relationship between the quadruple $(P_{n+1}(C), Q_n(C), F_{n+1}(R), V_{n+2}(R))$. (81b:57022)
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Total curvature and the topology of complete surfaces. **81i:53037**
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- Dombrowski, Peter Jacobi fields, totally geodesic foliations and geodesic differential forms. (**81m:57018**)
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- Kalka, M. Deformation of submanifolds of strongly negatively curved manifolds. (**81k:32021**)
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 Doppelpunktfreie geschlossene Geodätische auf kompakten Flächen. **(81g:58008)**
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 Knörer, Horst Geodesics on the ellipsoid. **(81h:58050)**
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53C25 Special Riemannian manifolds (Einstein, Sasakian, etc.)

- Adati, Tuzui (with Miyazawa, Tetsuro) On P -Sasakian manifolds admitting some parallel and recurrent tensors. **81g:53035**
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 Boju, Valentin (with Iamș, S.; Popescu, Mariana) Isotropic distributions on some Riemannian manifolds. **81f:53035**
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 Matuszek, Urszula On certain conformal collineations in nearly Sasakian manifolds. **81f:53038**
 Mishra, R. S. (with Pal, Ram Babu) (F, T, g) -connection in a Sasakian manifold. **81m:53056**
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 Lapedes, A. S. Black-hole uniqueness theorems in Euclidean quantum gravity. **(81j:83021)**
 Macedo, A. (with Som, M. M.) The Lewis metric and flat space-time. **(81a:83007)**
 Martin, Mircea See Nicolescu, Liviu, **(81a:53017)**
 Nicolescu, Liviu (with Martin, Mircea) Einige Bemerkungen über die Deformationsalgebra zweier linearer Zusammenhänge. **(81a:53017)**
 Sakaguchi, Toshio On generalized S -curvature-like tensors on some Sasakian manifolds. **(81i:53019)**
 Som, M. M. See Macedo, A., **(81a:83007)**
 Takahashi, Takao (with Toki, Yasunori) On normal contact metric structures on $SL(2, \mathbb{R})$. I. **(81a:53039)**
 Tanno, Shikichi Geodesic flows on C_L -manifolds and Einstein metrics on $S^3 \times S^2$. **(81g:58027)**
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53C30 Homogeneous manifolds [See also 14M15, 14M17, 32M10, 57T15.]

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 Štukar, V. L. Invariant connections and metrics on homogeneous spaces corresponding to global triples. (Russian) **81h:53050**
 Tafel, Jacek See Harnad, John; et al., **81k:53043**
 Vedernikov, S. V. Homogeneous spaces generated by an algebra and their morphisms. (Russian) **81d:53034**
 Zwart, Ph. B. (with Boothby, W. M.) On compact, homogeneous symplectic manifolds. (French summary) **81g:53040**

secondary classifications:

- Burdujan, Ilie Une application des systèmes homogènes de K. Yamaguti dans la géométrie différentielle. (Romanian summary) **(81k:53029)**
 Chakrabarti, Amitabha (with Comtet, A.; Viswanathan, K. S.) Static, self-dual, finite action $SU(3)$ gauge fields in the de Sitter space. **(81k:81073)**
 Comtet, A. See Chakrabarti, Amitabha; et al., **(81k:81073)**
 Cornu, Philippe Un homomorphisme caractéristique pour les fibrés principaux modélisés sur un espace homogène réductif. (English summary) **(81k:55028)**
 Dao Van Ca Extensions of transitive groups on compact homogeneous spaces. (Russian) **(81m:57031)**
 Fried, David (with Goldman, W.; Hirsch, Morris) Affine manifolds and solvable groups. **(81i:57018)**
 Goldman, W. See Fried, David; et al., **(81i:57018)**
 Hirsch, Morris See Fried, David; et al., **(81i:57018)**
 Kirichenko, V. F. On homogeneous Riemannian spaces with an invariant structure tensor. (Russian) **(81k:53038)**
 Li, Peter Eigenvalue estimates on homogeneous manifolds. **(81k:58067)**
 Malysev, F. M. Complete complex structures on homogeneous spaces of semisimple Lie groups. (Russian) **(81g:32025)**
 Morsy, Monir S. The geometrical relationship between the quadruple $(P_{n+1}(C), Q_n(C), P_{n+1}(R), V_{n+2,2}(R))$. **(81b:57022)**
 Mutō, Hideo (with Urakawa, Hajime) On the least positive eigenvalue of Laplacian for compact homogeneous spaces. **(81m:58083)**
 Pjasecki, V. S. Classification of convex cones of finite type and of rank three. (Russian) **(81g:32026)**
 Sakane, Yusuke On hypersurfaces of a complex Grassmann manifold $G_{m+n,n}(C)$. **(81i:53056)**
 Tsuji, Tadashi On curvatures of homogeneous convex cones. **(81g:32027)**

- Urakawa, Hajime See Matô, Hideo, (81m:50083)
 Viewmanian, K. S. See Chakrabarti, Amitabha; et al., (81k:81073)
 Zhou, Guang Zhao On the vacuum of the pure gauge fields on coset. (81k:81067)

53C35 Symmetric spaces [See also 32M15, 57T15.]

- Barros, Manuel (with Castellano, J.) Some surfaces in $U(q+1)/U(1) \times U(q)$ and $U(q+2)/U(2) \times U(q)$. 81c:53048
 Cahen, M. (with Parker, Monique) Pseudo-Riemannian symmetric spaces. 81b:53036
 Castellano, J. See Barros, Manuel, 81c:53048
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 Herz, Carl Les espaces symétriques pour piétons. 81k:53045
 Kerbrat, Yvan Propriétés projectives des espaces symétriques affines. (English summary) 81j:53052
 Kowata, Atsuhiko (with Tanaka, Makoto) Global solvability of the Laplace operator on a noncompact affine symmetric space. 81i:53041
 Matsuki, Toshihiko The orbits of affine symmetric spaces under the action of minimal parabolic subgroups. 81a:53049
 See also Ōshima, Toshio, 81f:53043
 Munkholm, Hans J. Simplices of maximal volume in hyperbolic space, Gromov's norm, and Gromov's proof of Mostow's rigidity theorem (following Thurston). 81k:53046
 Ōshima, Toshio (with Matsuki, Toshihiko) Orbits on affine symmetric spaces under the action of the isotropy subgroups. 81f:53043
 Parker, Monique See Cahen, M., 81b:53036
 Rogers, V.-B. K. The Laplace-Beltrami operator on homogeneous symmetric spaces of rank 1. (Russian) 81j:53053
 Roosmann, Wulf The structure of semisimple symmetric spaces. 81i:53042
 Sakai, Takashi Cut loci of compact symmetric spaces. 81h:53051
 Tanaka, Makoto See Kowata, Atsuhiko, 81i:53041
 Tirao, Juan Alfredo Antipodal manifolds in compact symmetric spaces of rank one. 81h:53052
 Vargas, Jorge A symmetric space of noncompact type has no equivariant isometric immersions into the Euclidean space. 81j:53054

secondary classifications:

- D'Atri, J. E. Certain isoparametric families of hypersurfaces in symmetric spaces. (81g:53041)
 Debiard, Amédée (with Gaveau, Bernard) Une formule de Green locale pour un espace symétrique irréductible de rang 2. (English summary) (81k:32025)
 DeGeorge, David L. Length spectrum for compact locally symmetric spaces of strictly negative curvature. (81i:58047)
 Đoković, Dragomir Ž. Topological reflection groups. (81i:51000)
 Donnelly, Harold Spectral geometry for certain noncompact Riemannian manifolds. (81a:58053)
 Eschenburg, Jost-Hinrich A note on symmetric and harmonic spaces. (81g:53036)
 Gaveau, Bernard See Debiard, Amédée, (81k:32025)
 Helgason, Sigurdur A duality for symmetric spaces with applications to group representations. III. Tangent space analysis. (81g:22021)
 Hikami, Shinobu Three-loop β -functions of nonlinear σ -models on symmetric spaces. (81m:81044)
 Kamysashvili, N. R. One-parameter groups of motions of pseudo-Riemannian spaces of dimension 2. (Russian) (81a:53056)
 Kimura, Yoshio On the hypersurfaces of Hermitian symmetric spaces of compact type. II. (81m:32037)
 Koranyi, Adam Compactifications of symmetric spaces and harmonic functions. (81e:32037)
 Lévy-Bruhl-Laperrière, Anne Spectre du de Rham Hodge sur l'espace projectif complexe. (English summary) (81j:58079)
 Miatello, Roberto J. The Minakshisundaram-Pleijel coefficients for the vector-valued heat kernel on compact locally symmetric spaces of negative curvature. (81f:58033)
 Min-Oo (with Ruh, Ernst A.) Comparison theorems for compact symmetric spaces. (81e:53027)
 Ōshima, Toshio Poisson transformations on affine symmetric spaces. (81k:43013)
 (with Sekiguchi, Jiro) Eigenspaces of invariant differential operators on an affine symmetric space. (81k:43014)
 Ruh, Ernst A. See Min-Oo, (81e:53027)
 Sekiguchi, Jiro See Ōshima, Toshio, (81k:43014)
 Švarcman, O. V. A Chevalley theorem for complex crystallographic groups that are generated by mappings in the affine space C^2 . (Russian) (81h:32016)
 Urakawa, Hajime On the least positive eigenvalue of the Laplacian for the compact quotient of a certain Riemannian symmetric space. (81d:58056)

53C40 Submanifolds [See also 53B25.]

- Albert, Claude Sur les immersions dans les variétés à courbure constante. 81m:53058
 Barros, Manuel (with Urbano, Francisco) CR-submanifolds of generalized complex space forms. 81c:53049
 (with Urbano, Francisco) Totally real submanifolds of quaternion Kaehlerian manifolds. 81d:53035
 Bejancu, Aurel Real hypersurfaces of a complex projective space. (Italian summary) 81c:53032
 Blair, David E. (with Vanstone, J. R.) A generalization of the helicoid. 81k:53047
 do Carmo, Manoel P. Minimal surfaces: stability and finiteness. 81b:53037
 Chen, Bang-yen (with Houh, Chong Shi) Totally real submanifolds of a quaternion projective space. 81a:53050
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 Totally umbilical submanifolds. 81d:53036
 Dao Công Thi Real minimal currents in compact Lie groups. (Russian) 81a:53051
 D'Atri, J. E. Certain isoparametric families of hypersurfaces in symmetric spaces. 81g:53041
 Dube, K. K. Invariant submanifolds of $f(3, -1)$ -structure manifolds. 81i:53043
 Fischer-Colbrie, Doris (with Schoen, Richard) The structure of complete stable minimal surfaces in 3-manifolds of nonnegative scalar curvature. 81i:53044
 Funahashi, Shōichi Totally complex submanifolds of a quaternionic Kaehlerian manifold. 81a:53052
 Hloeva, S. T. Infinitesimal deformations of submanifolds of a Riemannian manifold. 81m:53059
 Houh, Chong Shi Some totally real submanifolds in a quaternion projective space. 81k:53048
 See also Chen, Bang-yen, 81a:53050
 Ishihara, Ikuro Anti-invariant submanifolds satisfying a certain condition on normal connection. 81d:53037
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 Jarutkin, A. N. Surfaces with a nonzero Euler difference in pseudo-Euclidean space. (Russian) 81f:53044
 Ki, U Hang (with Kim, Young Ho) Infinitesimal variations of generic submanifolds of a Kaehlerian manifold. 81k:53049
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 Kubo, Yoshiko Compact submanifolds of codimension 2 of a Sasakian space form. 81k:53051
 Matsuyama, Yoshio Geometry of submanifolds with constant mean curvature. 81k:53052
 Mishra, R. S. Submanifolds of 3-structure metric manifolds. 81g:53042
 Structures in submanifolds of an almost Hermite manifold. 81g:53043
 See also Rathore, Mahendra Pal Singh, 81c:53051
 Morvan, Jean-Marie Some topological properties of totally quasi-umbilical submanifolds. 81d:53038
 Ollker, V. I. On compact submanifolds with nondegenerate parallel normal vector fields. 81c:53050
 A note on the asymptotic behaviour of the sum of principal radii of curvature on noncompact complete hypersurfaces. 81b:53038
 Paurilos, Pw. Kennzeichnung der geodätischen Abstandssphären in H^{n+1} durch ihr Schattengrenzen-Verhalten bei paralleler und punktförmiger Beleuchtung. 81k:53053
 Podran, V. E. The structure of spherical one-sheeted hypersurfaces with a horn. (Russian) 81b:53039
 Rathore, Mahendra Pal Singh (with Mishra, R. S.) On conformal Weingarten's map. 81c:53051
 Reckziegel, Helmut Completeness of curvature surfaces of an isometric immersion. 81j:53045
 Sakane, Yusuke On hypersurfaces of a complex Grassmann manifold $G_{m,n}(C)$. 81j:53056
 Šarafutdinov, V. A. Convex sets in a manifold of nonnegative curvature. (Russian) 81d:53039
 Schoen, Richard See Fischer-Colbrie, Doris, 81i:53044
 Sinha, B. B. On almost contact metric manifold with semisymmetric metric connection. 81k:53054
 Šrainer, E. G. Cartan forms of spaces with simple and quasisimple fundamental groups. (Russian) 81k:53055
 Šarygin, V. V. Families of totally geodesic hypersurfaces in Weyl spaces. (Russian) 81i:53045
 Suwa, Mitsuyoshi Remarks on minimal submanifolds of S^{n+N} . 81c:53052
 Thas, C. On minimal n -dimensional submanifolds of a space form $R^n(k)$, which are foliated by $(n-1)$ -dimensional totally geodesic submanifolds of $R^n(k)$. 81c:53034
 Urbano, Francisco See Barros, Manuel, 81c:53049 and Barros, Manuel, 81d:53035
 Vanstone, J. R. See Blair, David E., 81k:53047
 Yano, Kentaro (with Kon, Masahiro; Ishihara, Ikuro) Anti-invariant submanifolds with flat normal connection. 81c:53035
 (with Kon, Masahiro) Submanifolds of Kaehlerian product manifolds. 81b:53040
 Notes on infinitesimal variations of submanifolds. 81c:53036
 (with Kon, Masahiro) Generic submanifolds with semidefinite second fundamental form of a complex projective space. 81m:53062

secondary classifications:

- Agarwal, A. K. See Upadhyay, M. D., (81m:53049)
 Asada, Satoshi Notes on eigenvalues of Laplacian acting on p -forms. (81a:58050)
 Bejancu, Aurel On the geometry of leaves on a CR-submanifold. (81j:53026)
 Dekster, B. V. The length of a curve in a space of curvature $< K$. (81c:53045)
 Dol, Naoya On compact minimal hypersurfaces in a sphere with constant scalar curvature. (81d:53040)
 Eum, Sang Seup (with Ki, U Hang; Kim, Un Kyu; Kim, Young Ho) Submanifolds of codimension 3 of a Kaehlerian manifold. I. (81b:53034)
 Ferns, Dirk Symmetric submanifolds of Euclidean space. (81i:53040)
 Goenner, Hubert F. Local isometric embedding of Riemannian manifolds and Einstein's theory of gravitation. (81i:83023)
 Goldberg, Samuel Irving An application of Yau's maximum principle to conformally flat spaces. (81j:53043)
 Harvey, Alex Curvatures of hypersurfaces of transitivity of Bianchi model universes. (81d:83020)
 Harvey, Reese (with Lawson, H. Blaine, Jr.) Geometries associated to the group SU , and varieties of minimal submanifolds arising from the Cayley arithmetic. (81h:49028)
 Hasegawa, Taketoshi Spectral geometry of closed minimal submanifolds in a space form real or complex. (81j:58083)

- Ki, U. H. See Eum, Sang Seup; et al., (81b:53034)
 Kim, Un Kyu See Eum, Sang Seup; et al., (81b:53034)
 Kim, Young Ho See Eum, Sang Seup; et al., (81b:53034)
 Lawson, H. Blaine, Jr. See Harvey, Reese, (81b:49026)
 Mats, Yoso Some eigenforms of the Laplace-Beltrami operators in a Riemannian submersion. (81j:58085)

- Submanifolds of a Euclidean space with homothetic Gauss map. (81e:53006)
 Prasad, Shankar On almost contingent submanifolds. (81b:53038)
 Rigas, A. Geodesic spheres as generators of the homotopy groups of O, BO . (81e:57043)
 Shiohama, Katsuhiko Convex sets and convex functions on complete manifolds. (81f:53030)
 Smolal, Josef On the geometry of a partial product structure. (81k:53016)
 Upadhyay, M. D. (with Agarwal, A. K.) On a quasinormal $(\psi, g, u, v, e, \lambda)$ -structure. (81m:53049)
 Vargas, Jorge A symmetric space of noncompact type has no equivariant isometric immersions into the Euclidean space. (81j:53054)
 Villm, Jaak Factorization of curvature operators. (81g:53034)
 Wintgen, Peter Über die totale Absolutkrümmung verknoteter Sphären. (81j:57013)

53C42 Immersions (minimal, prescribed curvature, tight, etc.) [See also 49F10, 53A10, 57R40, 57R42.]

- Aminov, Ju. A. Isometric immersions of domains of n -dimensional Lobachevskii space in a $(2n-1)$ -dimensional Euclidean space. (Russian) 81g:53044
 Balkousis, Christos (with Koufogiorgos, Themis) Isometric immersions of complete Riemannian manifolds into Euclidean space. 81e:53053
 Buchner, K. See Roşa, Radu, 81g:53047
 Chen, Chang Shing Tight embedding and projective transformation. 81e:53054
 Dajzer, Marcos Reduction of the codimension of regular isometric immersions. 81e:53056
 Dol, Naoya On compact minimal hypersurfaces in a sphere with constant scalar curvature. 81d:53040
 Enomoto, Kazuyuki Total absolute curvature of immersed submanifolds of spheres. 81g:53045
 Ferraris, Marco (with Francaviglia, Mauro) An algebraic isometric embedding of Kruskal space-time. 81e:53055
 Francaviglia, Mauro See Ferraris, Marco, 81e:53055
 Fui, Chih Chy Kaehler manifolds isometrically immersed in Euclidean space. 81h:53057
 Gadalupe, Irwen Valle Submanifolds with parallel mean curvature vector. 81a:53053
 Haman, Th. On complete minimal submanifolds in R^n . 81b:53041
 Hoffman, David Lower bounds on the first eigenvalue of the Laplacian of Riemannian submanifolds. 81h:53058
 Itoh, Takehiro See Nakagawa, Hisao, 81k:53054
 Koufogiorgos, Themis See Balkousis, Christos, 81e:53053
 Kühnel, Wolfgang $(n-2)$ -tightness and curvature of submanifolds with boundary. 81g:53046
 A lower bound for the i th total absolute curvature of an immersion. 81m:53063
 Michehn, M. L. Clifford bundles, spinor bundles and Dirac operators. 81m:53064
 Moore, John Douglas (with Schlafly, Roger) On equivariant isometric embeddings. 81h:53059
 Nakagawa, Hisao (with Itoh, Takehiro) On isotropic immersions of space forms into a space form. 81k:53054
 Roşa, Radu (with Buchner, K.) Spatial submanifolds structured by a conformal parallel flat connection in an even-dimensional Minkowski space. 81g:53047
 Sasaki, Takeshi Hyperbolic affine hyperspheres. 81e:53037
 Schlafly, Roger See Moore, John Douglas, 81h:53059
 Škita, E. V. Isometric imbedding in E^3 of noncompact domains of nonpositive curvature. (Russian) 81a:53054
 Strüher, Gerhard Instabile Minimalflächen in Riemannschen Mannigfaltigkeiten nichtpositiver Schnittkrümmung. 81e:53038
 Teufel, Eberhard Eine differentialtopologische Berechnung der totalen Krümmung und Totalen Absolutkrümmung in der sphärischen Differentialgeometrie. (English summary) 81m:53065a
 Anwendungen der differentialtopologischen Berechnung der totalen Krümmung und totalen Absolutkrümmung in der sphärischen Differentialgeometrie. (English summary) 81m:53065b
 Whit, Lee B. Isometric homotopy and codimension-two isometric immersions of the n -sphere into Euclidean space. 81k:53055

secondary classifications:

- Asperl, Antonio Carlos Generic differential geometry. (Portuguese) (81c:53001)
 Blair, David E. (with Vanstone, J. R.) A generalization of the helicoid. (81k:53047)
 Dlubek, Helga (with Friedrich, Thomas) Immersionen höherer Ordnung kompakter Mannigfaltigkeiten in euklidische Räume. (81h:57013)
 Friedrich, Thomas See Dlubek, Helga, (81h:57013)
 Graves, Larry K. On codimension one isometric immersions between indefinite space forms. (81h:53068)
 Kemmotsu, Katsuei The Weierstrass formula for surfaces of prescribed mean curvature. (81c:53005a)
 Weierstrass formula for surfaces of prescribed mean curvature. (81c:53005b)
 Kobo, Norihito Variation of harmonic mapping caused by a deformation of Riemannian metric. (81h:58016)
 Mihajlov, V. M. Some properties of tubular minimal surfaces in R^n . (Russian) (81a:53007)
 Mihor, Tilla Klotz Harmonically immersed surfaces. (81j:58039)
 Mori, Hiroshi Remarks on the stability of a minimal surface in S^n . (81m:53008)
 Schoen, Richard (with Yau, Shing Tung) Existence of incompressible minimal surfaces and the topology of three-dimensional manifolds with nonnegative scalar curvature. (81k:58029)

- Šefel, S. Z. Surfaces in Euclidean space. (Russian) (81b:53008)
 Vanstone, J. R. See Blair, David E., (81k:53047)
 Yau, Shing Tung See Schoen, Richard, (81k:58029)

53C45 Global surface theory (convex surfaces à la A. D. Aleksandrov)

- Andrećin, Ekaterina See Ivanova-Karatopraklieva, Ivanka, 81d:53041
 Balkousis, Christos Umbilic points on compact surfaces of revolution. 81j:53057
 Bakel'man, I. Ja. (with Klot, Z. G.) The Dirichlet problem for Monge-Ampère equations and convex surfaces with given integral curvature in the Lobachevskii space. (Russian) 81e:53039
 Bleeker, David D. Infinitesimal deformations of portions of the standard sphere in E^3 . 81h:53060
 Brining, Jochen Über Membranen mit speziellen Knotenlinien. 81e:53040
 Bytkova, T. I. The Gauss theorem for a C^1 -smooth saddle surface with simple bowls. (Russian) 81f:53046
 Filimonova, A. P. Estimates in the C^2 metric and uniqueness of a convex surface in H^3 with given Gaussian curvature, that is homeomorphic to the sphere. (Russian) 81e:53056
 Fomenko, V. T. Rigidity of convex surfaces with a trimmed boundary. (Russian) 81e:53041
 Hakimov, A. H. The existence of a surface with boundary and with a prescribed sum of principal conditional radii of curvature in a singular case. (Russian. Tajiki summary) 81e:53055
 Isanov, T. G. Extension of infinitesimal bendings of surfaces of class $C^{m,\lambda}$. (Russian) 81e:53042
 Extension of infinitesimal bendings of surfaces of positive curvature. (Russian) 81h:53046
 Ivanova-Karatopraklieva, Ivanka (with Andrećin, Ekaterina) On the points of relative bendability of a composite surface of revolution. (Bulgarian. German summary) 81d:53041
 Sufficient conditions for the rigidity of some classes of surfaces. (Russian) 81h:53061
 Kantor, B. E. On the question of the global regularity of a net of curves on the plane. (Russian) 81h:53062
 Kim, V. S. (with Kuznetsov, V. V.; Solodovnikova, M. D.) A multidimensional analogue of a formula of A. D. Aleksandrov. (Russian) 81h:53063
 The differential geometry of smooth nonregular surfaces. II. (Russian) 81h:53064
 Multidimensional analogue of the Herglotz formula. (Russian) 81k:53057
 Klimentov, S. B. Global formulation of the fundamental theorem of the theory of n -dimensional surfaces in an m -dimensional space of constant curvature. (Russian) 81e:53043
 Klot, Z. G. See Bakel'man, I. Ja., 81e:53039
 Kuznetsov, V. V. See Kim, V. S.; et al., 81h:53063
 Markov, P. E. Infinitesimal bendings of certain multidimensional surfaces. (Russian) 81h:53065
 Milka, A. D. Shortest lines on convex surfaces. (Russian) 81e:53056
 Ollik, V. I. Eigenvalues of the Laplacian and uniqueness in the Minkowski problem. 81h:53058
 Ponarjadova, R. S. Conditions for the convexity of a closed surface with a given sum of the principal conditional radii of curvature. (Russian) 81h:53066
 Sapozhnikov, B. D. A priori estimate of principal radii of curvature of a nonclosed convex surface. (Russian) 81h:53067
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 Svoboda, Karel Contribution to the characterization of the sphere in E^3 . 81e:53057
 Taskarav, A. Existence of convex hypersurfaces of R -curvature, which is a sum of integral conditional curvatures. (Russian) 81e:53058
 Usov, V. V. Conformal mappings of manifolds of bounded curvature. (Russian) 81c:53059
 Vereshtagin, B. M. Reconstruction of a closed convex surface from a given function of the Gauss curvature. (Russian) 81h:53047
 Verner, A. L. Reconstruction from the extrinsic curvature of complete convex surfaces of nonzero genus in spaces of constant negative curvature. (Russian) 81h:53048
 Veselova, G. V. Bending of surfaces and vector R -fields in E_3 . (Russian) 81e:53060

secondary classifications:

- Granlund, Seppo Harnack's inequality in the borderline case. (81m:53041)
 Maceri, Aldo See Toscano, Raffaele, (81k:73045)
 Maeda, Masao On the existence of the rays. (81f:53028)
 Ngo Zui Kan Motion of an ideal fluid subject to surface-tension forces and filling a vessel with a plane elastic bottom. (81m:73046)
 Pogorelov, A. V. An analogue of the Minkowski problem for infinite complete convex hypersurfaces. (Russian) (81e:52004)
 Rothert, H. (with Zastrau, B.) Parameterstudien zum Tragverhalten flacher Schalen. (81j:73072)
 Šiskov, A. E. Classical solvability of the Dirichlet problem for a strongly elliptic Monge-Ampère equation. (Russian) (81a:53039)
 Tenenblat, Ketl A rigidity theorem for three-dimensional submanifolds in Euclidean six-space. (81m:53007)
 Toscano, Raffaele (with Maceri, Aldo) A problem of contact through membranes. (Italian. French summary) (81k:73045)
 Trudinger, Neil S. Local estimates for subsolutions and supersolutions of general second order elliptic quasilinear equations. (81h:35058)
 Usov, V. V. Conformal mappings of manifolds of bounded curvature. (Russian) (81d:53006)
 Zastrau, B. See Rothert, H., (81j:73072)

53C50 Lorentz manifolds, manifolds with indefinite metrics

- Alekseeva, V. E. Infinitesimal bendings of polyhedra in Lobachevskii space. (Russian) 81f:53047

- Arca, Giuseppe (with Caddeo, Renzo; Roşa, Radu) Variétés para-kähleriennes possédant la propriété concirculaire. (English summary) **81e:53044**
(with Roşa, Radu) k -structures de contact isotropes sur une variété lorentzienne. (Italian summary) **81g:53048**
- Beem, John K. Minkowski space-time is locally extendible. **81e:53045**
- Bugajska, Krystyna Spinor structure of space-time. **81e:53046**
- Caddeo, Renzo See Arca, Giuseppe; et al., **81e:53044**
- Chicone, Carmen (with Ehrlich, Paul E.) Line integration of Ricci curvature and conjugate points in Lorentzian and Riemannian manifolds. **81g:53049**
- Dajczer, Marcos (with Nomizu, Katsumi) On sectional curvature of indefinite metrics. II. **81e:53047**
- Dodson, C. T. J. (with Sulley, L. J.) On bundle completion of parallelizable manifolds. **81f:53048**
- Ehrlich, Paul E. See Chicone, Carmen, **81g:53049**
- Galloway, Gregory J. A generalization of Myers' theorem and an application to relativistic cosmology. **81i:53049**
- Graves, Larry K. On codimension one isometric immersions between indefinite space forms. **81k:53058**
- Jarutkin, A. N. Some conditions for the absence of closed asymptotic lines on surfaces with an indefinite metric. (Russian) **81d:53042**
- Kanyiamkili, N. R. One-parameter groups of motions of pseudo-Riemannian spaces of dimension 2. (Russian) **81a:53056**
- Kulkarni, R. S. The values of sectional curvature in indefinite metrics. **81k:53058**
- Lacaze, Jacques Feuilletage d'une variété lorentzienne par des hypersurfaces spatiales à courbure moyenne constante. (English summary) **81g:53050**
- Morvan, Jean-Marie See Roşa, Radu, **81e:53049**
- Nomizu, Katsumi See Dajczer, Marcos, **81e:53047**
- Popovici, Iliana Sur la structure des espaces fibrés à métrique invariante. **81e:53048**
- Roşa, Radu (with Morvan, Jean-Marie) Variétés lorentziennes structurées par une connexion conforme plate. (English summary) **81e:53049**
Espaces-temps possédant la propriété de Killing. **81g:53051**
Sous-variétés pseudo-minimales et minimales d'une variété pseudo-riemannienne structurée par une connexion spin-euclidienne. (English summary) **81a:53057**
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- Söter, François Sur les variétés harmoniques, radiatives ou récurrentes. (English summary) **81h:53069**
- Sulley, L. J. See Dodson, C. T. J., **81f:53048**
- Volkov, Ju. A. A priori estimates of principal radii of curvature of a closed convex surface of a Lobachevskii space. (Russian) **81g:53052**
- secondary classifications:
- Anile, A. M. (with Greco, Antonio) Asymptotic waves and critical time in general relativistic magnetohydrodynamics. (French summary) **(81m:83035)**
- Arca, Giuseppe On Minkowski spaces structured by a cylindrical connection. **(81d:53018)**
- Ashtekar, Abhay (with Schmidt, B. G.) Null infinity and Killing fields. **(81e:83018)**
- Belg, R. (with Simon, W.) Proof of a multipole conjecture due to Geroch. **(81m:83016)**
- Brigman, A. J. The conformal geometry of Minkowski space: hyperbolic world lines. **(81d:83005)**
- Bugajska, Krystyna Geometrical interpretation of spinors. **(81d:83006)**
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- Kazdan, Jerry L. A remark on the preceding paper of S. T. Yau: "On the Ricci curvature of a compact Kähler manifold and the complex Monge-Ampère equation. I". **81d:53046**
- Kobayashi, Shoshichi The first Chern class and holomorphic symmetric tensor fields. **81f:53053**
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- Bourguignon, Jean Pierre Premières formes de Chern des variétés kähleriennes compactes [d'après E. Calabi, T. Aubin et S. T. Yau]. **(81d:58057)**
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- Ceitin, A. A. Two-dimensional Kähler-Einstein spaces and gravitational instantons. **(81m:83036)**
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- Futaki, Akito Nonexistence of minimizing harmonic maps from 2-spheres. (81j:58036)
- Gilkey, Peter B. See Eguchi, Tokuji; et al. (81m:83002)
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- Girbau, Joan Vanishing theorems and stability of complex analytic foliations. (81k:57023)
- Greene, Robert E. (with Wu, Hung Hsi) ★Function theory on manifolds which possess a pole. (81a:53002)
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- Kim, Young Ho See Ki, U Hang. (81k:53049)
- Kon, Masahiro See Yano, Kentaro. (81b:53040) and Yano, Kentaro; et al. (81e:53035)
- König, Masanori The spectrum of Kähler manifolds. (81f:58042)
- Lieberman, David L. A Poincaré-Bendixson theorem for compact Kähler manifolds. (81c:53056)
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- Shramov, M. Differential-geometric study of a class of hypersurfaces in a complex torus. (81f:32032)
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- Niculescu, Liviu On the holomorphically subplanar curves. (81g:53028)

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- Borlov, Adrijan V. Integral formulas of Crofton type for a curve and sets of lines that intersect the curve. II. (Bulgarian. English summary) 81e:53056
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- Pipltone, Vincenzo (with Russo, Giuseppe) Measurability of the families of nondegenerate quadrics of hyperbolic and elliptic types of the projective space P_3 . (Italian. English summary) 81f:53057c
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- Mohri, Masayuki See Shibata, Keiichi. (81d:53024)
- Shibata, Keiichi (with Mohri, Masayuki) Conformal structures on the real n -torus. (81d:53024)

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- Rawnsley, J. H. Self-dual Yang-Mills fields. 81g:53054

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- D'Adda, A. (with D'Auria, R.; Fré, P.; Regge, T.) Geometrical formulation of supergravity as a theory on a supergroup manifold. (See 81j:83001)
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- Fischer, Elliot Similarity solutions of the Einstein and Einstein-Maxwell equations. (81a:83005)
- Fré, P. On de Sitter gauge invariance and de Sitter spinor calculus in gravitation theory. (Italian and Russian summaries) (81a:83028)
- See also D'Adda, A.; et al. (See 81j:83001)
- Freedman, Daniel Z. See Alvarez-Gaumé, Luis. (81j:81076)
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- Green, P. Integrality of the Coulomb charge in the line space formalism. (81a:81140)
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- Kugler, M. See Castillejo, L. (81d:81048)
- Lacomba Zamora, Ernesto A. Transitive mechanical systems. (81b:58030)
- Leinaas, J. M. See Felsager, B. (81e:81128)
- Li, Gen Dao See Chen, Shi; et al. (81g:83047)
- Logunov, A. A. See Denisor, V. I. (81i:83019)
- Love, A. See Bailin, D. (81j:81125)
- Lukierski, Jerzy Complex and quaternionic supergeometry. (See 81j:83001)
- Magnon-Ashtekar, Anne See Ashtekar, Abhay. (81e:83026)
- Maison, H. Dieter See Burzlaff, Jürgen. (81h:83010)
- Mariwalla, K. H. Relativity of paths: applications to mechanics and cosmology. (81g:83070)
- Nahm, W. On abelian self-dual multimonopoles. (81d:81056)
- Newman, E. T. Deformed twistor space and H -space. (81e:83017)
- Nowakowski, Jerzy (with Trautman, Andrzej) Natural connections on Stiefel bundles are sourceless gauge fields. (81a:58020)
- Panov, V. F. Stationary Einstein-Maxwell fields. (Russian) (81g:83015)
- Peresekii, A. A. Qualitative theory of open cosmological models with motion of matter. (Russian) (81a:83044)
- Pisarenko, V. G. The exterior two-body problem in general relativity with account taken of the deviation of the argument. (Russian) (81a:83011)
- Qadir, Asghar Field equations in twistors. (81a:83018)
- Rawnsley, J. H. A nonunitary pairing of polarizations for the Kepler problem. (81m:58037)
- Regge, T. See D'Adda, A.; et al. (See 81j:83001)
- Rosquist, Kjell Global rotation. (81j:83048)
- Rougée, P. Formulation lagrangienne intrinsèque en mécanique des milieux continus. (English summary) (81j:73005)
- Rubakov, V. A. Canonical quantization of gravity and a problem of scattering. (81i:83028)
- Rund, Hanno Decompositions of connection and curvature forms. (81h:53031)
- Schmidt, B. G. (with Stewart, J. M.) The scalar wave equation in a Schwarzschild space-time. (81d:83025)
- Shnider, Steven See Harnad, John; et al. (81e:81070)
- Smrz, P. K. A new unified field theory based on de Sitter gauge invariance. (81b:83011)
- Sokolov, A. A. See Aliev, A. N.; et al. (81g:83010)
- Stewart, J. M. See Schmidt, B. G. (81d:83025)
- Strobel, H. Theorems on vector fields in the general relativistic μ -space. (81a:83069)
- Thirring, W. Gauge theories of gravitation. (81d:83036)
- Tod, K. P. Remarks on asymptotically flat \mathcal{K} -spaces. (81c:83018)
- (with Winicour, J.) Singularities at real points of \mathcal{K} -space. (81h:83016)
- Trautman, Andrzej On gauge transformations and symmetries. (Russian summary) (81a:81059)
- See also Nowakowski, Jerzy. (81a:58020)
- Tulczyjew, Włodzimierz M. Geometry of gauge fields for extended objects. (81g:81075)
- Vinet, L. See Harnad, John; et al. (81e:81070)
- Westcott, B. S. See Brickell, F. (81g:78035)
- Winicour, J. See Tod, K. P. (81h:83016)
- Wu, Yong Shi Planck length and the five-dimensional principal U_1 -bundle theory unifying gravitation and electromagnetism. (Chinese. English summary) (81h:83040)
- Zakrzewski, W. J. See Din, A. M. (81d:81074)
- Zhang, Yuan Zhong See Chen, Shi; et al. (81g:83047)

53C99 None of the above, but in this section

- Reventós, A. On the Gauss-Bonnet formula on odd-dimensional manifolds. 81j:53066
- van Strien, Sebastian J. Unicity of the Lie product. 81a:53061
- Verner, A. L. Relation of properties of relatively polar saddle surfaces. (Russian) 81b:53047
- secondary classifications:
- Boyer, Charles P. Formal algebraic models of graded differential geometry. (81j:17014)
- Dodziuk, Jozef L^2 harmonic forms on rotationally symmetric Riemannian manifolds. (81e:58004)
- Schonfeld, Jonathan F. Vierbein singularities in CP^2 . (81d:83035)

54-XX GENERAL TOPOLOGY (For the topology of manifolds of all dimensions, see 57Nxx.)

Problems:

Topology Problem section. 81m:54001

54-01 Elementary exposition, textbooks

- Aubin, Jean-Pierre ★Applied abstract analysis. 81e:54001
 (Bricker, Th.) See Jänich, Klaus, 81m:54002
 (Cornet, Bernard) See Aubin, Jean-Pierre, 81e:54001
 Delachet, André ★La topologie. (French) [Topology] 81e:54001
 Jänich, Klaus ★Topologie. (German) [Topology] 81m:54002
 (Lakrouse, Carole) See Aubin, Jean-Pierre, 81e:54001
 (Moulin, Hervé) See Aubin, Jean-Pierre, 81e:54001
 Rakovec, Janez ★Osnovni pojmi topologije. (Slovenian) [Basic concepts of topology] 81b:54001
 Scharle, Arlo W. ★Topics in topology. 81e:54002

secondary classifications:

- Bliznjakov, N. M. See Borisovič, Ju. G.; et al., (81j:55001)
 Bobillo Guerrero, Pablo Nets and filters. (Spanish) (81h:54002)
 Borisovič, Ju. G. (with Bliznjakov, N. M.; Izrailevič, Ja. A.; Fomenko, T. N.) ★Введение в топологию. (Russian) [Introduction to topology] (81j:55001)
 Fomenko, T. N. See Borisovič, Ju. G.; et al., (81j:55001)
 Izrailevič, Ja. A. See Borisovič, Ju. G.; et al., (81j:55001)
 Mord, David On dimension theory. (Spanish) (81h:54044)
 Naber, Gregory L. ★Topological methods in Euclidean spaces. (81i:55001)

54-02 Advanced exposition (research surveys, monographs, etc.)

- Juhász, István A survey of S - and L -spaces. 81j:54001

secondary classifications:

- Comfort, W. W. Ultrafilters: an interim report. (81a:54007)
 Dobson, C. T. J. ★Categories, bundles and spacetime topology. (81i:83001)
 Nyikos, Peter J. Order-theoretic base axioms. (81g:54041)

54-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

- Aleksandrov, P. S. (with Zaicev, V. I.) The general topology school at Moscow University. (Russian) (81a:01025)
 (Brouwer, L. E. J.) See van Stigt, W. P., (81d:01023)
 Przymusiński, Teodor C. Product spaces. (81b:54009)
 van Stigt, W. P. L. E. J. Brouwer: intuitionism and topology. (81d:01023)
 Wilder, Raymond L. Correction and addendum to: "Evolution of the topological concept of 'connected'" [Amer. Math. Monthly 85 (1978), no. 9, 720-726; MR 80f:01019a] (81f:01023)
 Zaicev, V. I. See Aleksandrov, P. S., (81a:01025)

54-04 Explicit machine computation and programs (not the theory of computation or programming)

54-06 Proceedings, conferences, etc.

- (Bayen, P. C.) See Topological structures, 81a:54001a and Topological structures, 81a:54001b
 (Cainzar, Akos) See Topology, 81i:54001
 (Eggen, E. L.) See Topological spaces and their mappings, 81b:54002
 (Kuperberg, Włodzimierz) See Proceedings: Topology Conference, 81h:54001 and Proceedings: Topology Conference, 81k:54001
 (van Mill, Jan) See Topological structures, 81a:54001a and Topological structures, 81a:54001b
 (Reed, G. M.) See Proceedings: Topology Conference, 81h:54001 and Proceedings: Topology Conference, 81k:54001
 (Riecke, C.) See Proceedings: Conference on Convergence Structures, 81m:54003
 (Zenor, Phillip) See Proceedings: Topology Conference, 81h:54001 and Proceedings: Topology Conference, 81k:54001
 Amsterdam ★Topological structures. II. Part 1. 81a:54001a
 ★Topological structures. II. Part 2. 81a:54001b
 Athens, Ohio ★The Proceedings of the 1979 Topology Conference. 81h:54001
 ★The Proceedings of the 1979 Topology Conference. 81k:54001
 Budapest ★Topology. Vol. I, II. 81i:54001
 Colloquia Mathematica Societatis János Bolyai ★Topology. Vol. I, II. 81i:54001
 Colloquium: Topology ★Topology. Vol. I, II. 81i:54001
 Conference: Convergence Structures ★Proceedings of the Conference on Convergence Structures. 81m:54003
 Topology ★The Proceedings of the 1979 Topology Conference. 81h:54001
 ★The Proceedings of the 1979 Topology Conference. 81k:54001
 Convergence structures ★Proceedings of the Conference on Convergence Structures. 81m:54003
 Geometry ★Topological structures. II. Part 1. 81a:54001a
 ★Topological structures. II. Part 2. 81a:54001b

- Lawton, Okla. ★Proceedings of the Conference on Convergence Structures. 81m:54003
 Proceedings:

- Conference on Convergence Structures ★Proceedings of the Conference on Convergence Structures. 81m:54003
 Topology Conference ★The Proceedings of the 1979 Topology Conference. 81h:54001
 ★The Proceedings of the 1979 Topology Conference. 81k:54001

Symposium:

- Topology and Geometry ★Topological structures. II. Part 1. 81a:54001a
 ★Topological structures. II. Part 2. 81a:54001b
 Topological spaces and their mappings ★Топологические пространства и их отображения. (Russian) [Topological spaces and their mappings] 81b:54002
 Topological structures ★Topological structures. II. Part 1. 81a:54001a
 ★Topological structures. II. Part 2. 81a:54001b
 Topology ★The Proceedings of the 1979 Topology Conference. 81h:54001
 ★Topology. Vol. I, II. 81i:54001
 ★The Proceedings of the 1979 Topology Conference. 81k:54001

54Axx Generalities

54A05 Topological spaces and generalizations (closure spaces, etc.)

- Aumann, Georg Der abbildungstheoretische Zugang zur Topologie. II. 81a:54002
 Bennett, Mary Katherine Convexity closure operators. 81c:54002
 Carlson, John W. See Roth, David N., 81i:54002
 Crossley, S. Gene On semi-open set structure. 81c:54003
 Fré, R. (with Kent, Darrell C.) On functorial completions of Cauchy spaces. 81k:54002
 Guin Marin, Josep V. Axiomatic variants of the boundary operator. (Spanish) 81m:54004
 Isler, R. (with Tironi, G.) Cardinal dependent closures in topological spaces. 81m:54005
 Ivanov, A. A. Structures of topological type. (Russian) 81c:54004
 Kent, Darrell C. See Fré, R., 81k:54002
 Lenzi, Domenico Partially ordered sets and bases for the closed sets in topological spaces. 81a:54003
 Martínez Calvo, María Cristina (with Pérez de Vargas, Alberto) Note on the notion of adherence. (Spanish. French summary) 81m:54006
 Muir, A. (with Warner, M. W.) Homogeneous tolerance spaces. 81c:54005
 Netzer, N. Generalized Kuratowski operators and convergence. 81m:54007
 Noiri, Takashi On S -closed subspaces. (Italian summary) 81j:54002
 Okada, Toshino Closure algebras and compact spaces. 81m:54008
 Pérez de Vargas, Alberto See Martínez Calvo, María Cristina, 81m:54006
 Roth, David N. (with Carlson, John W.) Čech closure spaces. 81i:54002
 Tironi, G. See Isler, R., 81m:54005
 Warner, M. W. See Muir, A., 81c:54005

secondary classifications:

- Auray, J. P. (with Brissaud, M.; Duru, G.) Connexité des espaces préférenciels. (81b:05069)
 Brissaud, M. See Auray, J. P.; et al., (81b:05069)
 Duru, G. See Auray, J. P.; et al., (81b:05069)
 Fukushima, Yasukazu Some properties of subsequential spaces. (Japanese summary) (81h:54031)
 Ignat, C. Approximate stability of generalized dynamical systems. (81i:54029)
 Marlow, A. R. Empirical topology: topologies from partially ordered sets. (81k:06003)
 Nakanishi, Shizu The space of distributions treated as a ranked space. (81j:46061)
 Proding, Helmut Topologies on free monoids induced by closure operators of a special type. (French summary) (81i:68112)
 Reynolds, George Alexandroff algebras and complete regularity. (81d:54014)
 Stavrova, D. N. Cardinal-valued invariants for neighborhood spaces—definitions and main relations. (Russian) (81m:54014)

54A10 Change of topology, comparison of topologies

- Bankston, Paul The total negation of a topological property. 81b:54003
 Cvid, S. F. See Efimov, B. A., 81a:54004
 Efimov, B. A. (with Cvid, S. F.) Contraction to connected spaces. (Russian) 81a:54004
 El'kin, A. G. Some topologies on an infinite set. (Russian) 81k:54003
 Fattorosi-Barnaba, Maurizio Natural equivalences of topologies and semilattices. (Italian. English summary) 81e:54003
 Hayashi, Eiichi Topologies defined by ideals of sets. 81j:54003
 Kannan, V. Pairs of topologies with same family of continuous self-maps. 81b:54004
 Levinson, Henry (with Silverman, Ruth) Topologies on finite sets. II. 81c:54006
 Patronis, A. Topology induced by a topological group acting on a set. 81m:54009
 Silverman, Ruth See Levinson, Henry, 81c:54006
 Tabor, Charles D. On extended topologies. 81j:54004

secondary classifications:

- Cameron, Douglas E. Some maximal topologies which are QHC. (81e:54023)
 Collino, Alberto The topology union of two second countable topologies is not first countable. (Italian summary) (81c:54050)
 Crossley, S. Gene A note on semitopological properties. (81d:54011)
 Joseph, James E. Maximum cardinalities for topologies on finite sets. (81i:54005)
 Reynolds, George Alexandroff algebras and complete regularity. (81d:54014)
 Yoshioka, Tawo Note on topologies for function spaces. (81m:54022)

54A15 Syntopogeneous structures

54A20 Convergence (general theory) and limits

- Bolílo Guerrero, Pablo** Nets and filters. (Spanish) **81h:54002**
Butson, Robert W. On filter \mathcal{Q} -convergence. **81k:54004**
Ching, In Chae A note on semiconvergence spaces. (Korean summary) **81h:54003**
Goldston, J. W. Topologies determined by a class of nets. **81g:54001**
Hamlett, T. R. H -closed spaces and the associated θ -convergence. **81e:54004**
Hušek, Miroslav Convergence versus character in compact spaces. **81m:54010**
Irwin, James M. (with Kent, Darrell C.) Sequential Cauchy spaces. (Russian summary) **81g:54002**
Kent, Darrell C. (with Richardson, Gary D.) Two generalizations of Novák's sequential envelope. **81j:54005**
 See also **Irwin, James M.**, **81g:54002**
Lowen-Colebunders, E. Cospaces of a convergence space. **81a:54005**
 The Choquet hyperspace structure for convergence spaces. **81j:54006**
Moscariello, Gioconda F -limits in spaces with convergence. (Italian) **81k:54005**
Richardson, Gary D. Applications of convergence spaces. **81d:54001**
 See also **Kent, Darrell C.**, **81j:54005**
Trombetta, Maurizio Convergence structures for filters. (Italian) **81d:54002**
Walczak, Zofia Uniform convergence of sequences of functions with values in a topological space. **81h:54004**

secondary classifications:

- Ball, Richard N.** Convergence and Cauchy structures on lattice ordered groups. (81m:06039)
Butzmann, Heinz-Peter Der Satz von Stone-Weierstrass in $C_c(X)$ und seine Anwendungen auf die Darstellungstheorie von Limesalgebren. (81i:54012)
Cicogna, G. An abstract generalization of the concepts of limit and semicontinuity in ordered function spaces. (Italian summary) **81j:54022**
 A "categorical" analysis of the notion of convergence. (Italian. English summary) **81m:54020**
Frič, R. (with Kent, Darrell C.) On functorial completions of Cauchy spaces. (81k:54002)
Goldman, M. A. Compactness and relative compactness of sets in topological spaces. (Russian) **81h:54023**
Herrmann, Robert A. Perfect maps on convergence spaces. (81e:54015)
Kent, Darrell C. See **Frič, R.**, **81k:54002**
Kneis, G. On regular completion of pseudo-uniform spaces. (81m:54048)
Némethi, Csaba Uniformizations of certain convergence structures. (Romanian summary) **81g:54026**
Restrepo, Guillermo Convergence of sequences in Banach spaces. (Spanish) **81h:46010**
Terpe, F. On a suitable notion of convergence for the space of matrix summations. (81i:40005)
Wagner, Elzbieta Convergence in category. (Italian summary) **81h:54019**

54A25 Cardinality properties (discrete subsets, weight, etc.), ultrafilters, etc. [See also 03Exx, 04A30.]

- Arhangel'skii, A. V.** Invariants of character and weight type. (Russian) **81b:54005**
Balcar, Bohuslav (with Frankiewicz, Ryszard) Ultrafilters and ω_1 -points in $\beta\mathbb{N}$. (Russian summary) **81i:54003**
Elimov, B. A. Hypercardinality of spaces that are associated with ultrafilters. (Russian) **81j:54007**
Filippov, V. V. Weight characteristics of a space with a compact group action. (Russian) **81h:54006**
Frankiewicz, Ryszard See **Balcar, Bohuslav**, **81i:54003**
Gryzlov, A. A. Two theorems on the cardinality of topological spaces. (Russian) **81j:54008**
Hajnal, A. (with Juhász, István) Having a small weight is determined by the small subspaces. **81m:54011**
Hodel, R. E. A technique for proving inequalities in cardinal functions. **81m:54012**
Joseph, James E. Maximum cardinalities for topologies on finite sets. **81i:54005**
Juhász, István See **Hajnal, A.**, **81m:54011**
Malyhin, V. I. Ramsey spaces. (Russian) **81a:54006**
Meyer, P. R. (with Wilson, Richard G.) Cardinal functions on topological spaces satisfying order conditions. **81m:54013**
Plastra, Frank Tightness in the lattice of topologies. **81k:54007**
Rudin, Mary Ellen S and L spaces. **81d:54003**
Scott, Brian M. On the duality of cardinal invariants. **81j:54009**
Starova, D. N. Cardinal-valued invariants for neighborhood spaces—definitions and main relations. (Russian) **81m:54014**
Talamo, Rodolfo A topological characterization of a class of cardinals. **81h:54005**
Tkachenko, M. G. Continuous images of dense subspaces of topological products. (Russian) **81j:54010**
 On π -bases of rank 1 in infinite Cartesian products. (Russian. English summary) **81h:54006**
Vylov, V. M. The power of bicomacts with lattices of open maps. (Russian) **81b:54006**
Weese, Martin Mad families and ultrafilters. **81i:54004**
Wilson, Richard G. See **Meyer, P. R.**, **81m:54013**

secondary classifications:

- Arhangel'skii, A. V.** Some properties of radial spaces. (Russian) **81c:54059**
Armstrong, Thomas E. Arrow's theorem with restricted coalition algebras. (81h:90010)
Asanov, M. O. A space of continuous mappings. (Russian) **81k:54011**
Balcar, Bohuslav (with Vojtáš, Peter) Almost disjoint refinement of families of subsets of \mathbb{N} . (81e:04004)
Randlov, I. Continuous mappings of extremally disconnected bicomacts onto a Cantor

- discontinuum. (Russian. English summary) **81i:54026**
Bankston, Paul The total negation of a topological property. (81b:54003)
Bregman, Ju. H. (with Šostak, A. P.) Some topological theorems of Ramsey. (Russian) **81g:54004**
Čigogidze, A. Č. Perfect normality and Martin's axiom. (Russian. Georgian and English summaries) **81c:54032**
Comfort, W. W. Ultrafilters: an interim report. **81a:54007**
Dagaen-Tessier, Maryvonne Ultrafiltres à la façon de Ramsey. (English summary) **81b:54004**
Fedorčuk, V. V. The method of scannable spectra and fully closed mappings in general topology. (Russian) **81m:54071**
Fleissner, William G. (with Miller, Arnold W.) On \mathcal{Q} sets. **81i:03077**
Galvin, Fred Chain conditions and products. **81m:03058**
Grinblat, L. Š. (with Nishiura, Togo) Partition of topological spaces into zero-dimensional subsets. **81m:54068**
Hušek, Miroslav Mappings from products. **81i:54007**
Koppelberg, Sabine Cardinalities of ultraproducts of finite sets. **81i:04006**
Lažetić, Nebojša Bounded sets in a topological space. (81j:54041)
Linčuk, R. S. The dimension of hyperspaces. (Russian) **81g:54006**
Livson, B. U. Cardinality and separation axioms. **81k:54019**
van Mill, Jan A simple observation concerning the existence of non-limit points in small compact F -spaces. **81d:54029**
Miller, Arnold W. See **Fleissner, William G.**, **81i:03077**
Negreponis, S. Combinatorial techniques in functional analysis. **81a:46020**
Nishiura, Togo See **Grinblat, L. Š.**, **81m:54068**
Reiterman, Jan (with Rödl, Vojtěch) Atoms in uniformities. (Czech) **81k:54038**
Reynolds, George See **Rice, Michael D.**, **81j:54059**
Rice, Michael D. (with Reynolds, George) Weakly Borel-complete topological spaces. **81j:54059**
Rödl, Vojtěch See **Reiterman, Jan**, **81k:54038**
Šapiro, L. B. Regular averaging operators. (Russian) **81b:54015**
Sarbadikari, H. Selection theorems for partitions of complete metric spaces. (81h:54037)
 A selection theorem for multifunctions. **81g:54013**
Shelah, Saharon Remarks on λ -collectionwise Hausdorff spaces. (81f:03060)
Šostak, A. P. See **Bregman, Ju. H.**, **81g:54004**
Szymański, Andrzej Spaces and their subspaces. **81m:54035**
Vaughan, J. E. Countably compact, locally countable T_2 -spaces. **81g:54017**
Vojtáš, Peter See **Balcar, Bohuslav**, **81i:54004**
Waiveris, Charles Intersections of countably compact subspaces of βX . **81i:54016**
Willmott, Richard Uniform spaces as nice images of nice uniform and metric spaces. **81j:54045**

54A35 Consistency and independence results [See also 03E35.]

- Comfort, W. W.** Ultrafilters: an interim report. **81a:54007**
Malyhin, V. I. Extremely disconnected topological groups. (Russian) **81c:54007**

secondary classifications:

- (Arhangel'skii, A. V.) See **Gruenhage, Gary**, **81k:54021**
Fleissner, William G. (with Miller, Arnold W.) On \mathcal{Q} sets. **81i:03077**
 Martin's axiom implies that de Caux's space is countably metacompact. **81j:54031**
Gruenhage, Gary Paracompactness and subparacompactness in perfectly normal locally bicomact spaces. (Russian) **81k:54021**
Malyhin, V. I. Luzin spaces. (Russian) **81m:03060**
Miller, Arnold W. See **Fleissner, William G.**, **81i:03077**
Nyikos, Peter J. A provisional solution to the normal Moore space problem. **81k:54044**
Rančin, D. V. Hereditarily infinite-dimensional spaces. (Russian) **81g:54038**
Roitman, J. Adding a random or a Cohen real: topological consequences and the effect on Martin's axiom. **81h:03098**
Rudin, Mary Ellen S and L spaces. **81d:54003**
Szentmiklóssy, Z. S -spaces and L -spaces under Martin's axiom. **81k:54032**
Tall, Franklin D. Large cardinals for topologists. **81h:03100**
 Some applications of small cardinal collapse in topology. **81m:03061**

54A40 Fuzzy topology [See also 03E72.]

- Butnariu, Dan** A fixed point theorem and its applications to fuzzy games. **81a:54008**
Cerruti, Umberto M -relational spaces and fixed point theorems. **81h:54007**
Conrad, F. Fuzzy topological concepts. **81h:54008**
Erceg, Michael A. Functions, equivalence relations, quotient spaces and subsets in fuzzy set theory. **81e:54005**
Gantner, T. E. (with Steinlage, R. C.; Warren, Richard H.) Compactness in fuzzy topological spaces. **81e:54006**
Höhle, Ulrich Probabilistic uniformization of fuzzy topologies. **81j:54011**
 Example: a locally convex L -fuzzy topology on the set of all almost everywhere defined random variables. (See **81m:03067**)
Hutton, Bruce (with Reilly, Ivan) Separation axioms in fuzzy topological spaces. **81k:54008**
Katsaras, A. K. On fuzzy proximity spaces. **81h:54009**
Kerre, E. E. Fuzzy Sierpiński space and its generalizations. **81f:54001**
Lou, S. P. (with Pan, S. H.) Fuzzy structure. **81j:54012**
Lowen, Robert Compact Hausdorff fuzzy topological spaces are topological. (See **81m:03067**)
Martin, Harold W. A Stone-Čech ultrafuzzy compactification. **81e:54007**
Pan, S. H. See **Lou, S. P.**, **81j:54012**
Reilly, Ivan See **Hutton, Bruce**, **81k:54008**
Steinlage, R. C. See **Gantner, T. E.**; et al., **81e:54006**

Warren, Richard H. Fuzzy topologies characterized by neighborhood systems.

81a:54009

Fuzzy topological results. (See 81a:03067)

See also Gantner, T. E.; et al., 81a:54006

secondary classifications:

Buhiescu, T. T. p -convex fuzzy sets. (Romanian and French summaries) (81h:03104)
Caire, Luisella (with Cerruti, Umberto) Fuzzy-relational spaces. (Italian summary) (81h:54038)

Cerruti, Umberto See Caire, Luisella, (81h:54038)

Gantner, T. E. (with Steinlage, R. C.; Warren, Richard H.) Errata: "Compactness in fuzzy topological spaces" [J. Math. Anal. Appl. 62 (1978), no. 3, 547-562; MR 81e:54006]. (81i:54015)

(Klement, Erich Peter) See Proceedings: International Seminar on Fuzzy Set Theory, (81m:03067)

Rovinsky, Eugen On some examples of fuzzy topological structures defined by adding neighborhoods. (Romanian. English summary) (81g:03063)

Steinlage, R. C. See Gantner, T. E.; et al., (81i:54015)

Warren, Richard H. See Gantner, T. E.; et al., (81i:54015)

Zimmermann, H.-J. Theory and applications of fuzzy sets. (French summary) (See 80a:90003)

Fuzzy set theory ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

Linz ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

Proceedings:

International Seminar on Fuzzy Set Theory ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

Seminar:

Fuzzy Set Theory ★Proceedings of the International Seminar on Fuzzy Set Theory. (81m:03067)

54A99 None of the above, but in this section

Deák, E. On nonorderly spaces. (See 81i:54001)

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Bordalo, Gabriela Le radical de Stone d'une p -algèbre. (English summary) (81d:06012)
Das, Shrawan Kumar An Euler-Poincaré characteristic for the open set lattices of finite topologies. (81a:05021)

Guay, M. D. Introduction to the theory of convexity-topological spaces. (81m:52002)

Gurevich, Yuri Monadic theory of order and topology. II. (81f:03049)

Joseph, James E. θ -closure and θ -subclosed graphs. (81b:54013)

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Pasyukov, B. A. On a theorem of E. Čech. (Russian. English summary) (81k:54031)

Pol, Elzbieta (with Pol, Roman) A hereditarily normal strongly zero-dimensional space containing subspaces of arbitrarily large dimension. (81g:54037)

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Marxen, Donald Uniform quotients of metric spaces. (81m:54051)

Neumann Lara, Victor (with Wilson, Richard G.) The epireflective hull of the category of T_1 dispersed spaces. (81g:54008)

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- Boxer, Laurence (with Sher, Richard B.) Borsuk's fundamental metric and shape domination. (Russian summary) **(81c:54030)**
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54B25 Sums, inverse limits

- Balasubramanian, G. (with Harianandachary, T. V. H.) α_P - P spaces. **81a:54010**
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- Charalambous, M. G. An example concerning inverse limit sequences of normal spaces. **(81c:54032)**
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- Adámek, Jiří (with Herrlich, Horst; Strecker, George E.) The structure of initial completions. **(81d:18009)**
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 Hager, Anthony W. Uniform embeddings into coreflections of products. **(81c:54026)**

- Hajek, Darrell W. (with Mysior, Adam) On nonsimplicity of topological categories. **(81j:18009)**

- Hardie, K. A. See Fay, Temple H.; et al., **(81g:18002)**

- Heidermann, N. C. Concentrated nearness spaces. **(81c:54019)**

- A remark on the embeddings of $\mathcal{R}_0\text{Top}$ into the category of nearness spaces. **(81k:54040)**

- Herrlich, Horst (with Salicrup López, Graciela; Vázquez, R.) Light factorization structures. **(81c:18003)**

- (with Nakagawa, R.; Strecker, George E.; Titcomb, T.) Equivalence of topologically-algebraic and semitopological functors. **(81f:18006)**

- See also Adámek, Jiří; et al., **(81d:18009)** and Structure of topological categories, **(81a:18001)**

- (Hoffmann, Rudolf-Eberhard) See Structure of topological categories, **(81a:18001)**

- Hong, S. S. (with Nel, L. D.) Reflexive topological semilattices and duality. **(81c:18010)**

- Kannan, V. Pairs of topologies with same family of continuous self-maps. **(81b:54004)**

- Kent, Darrell C. (with Richardson, Gary D.) Two generalizations of Novák's sequential envelope. **(81j:54005)**

- See also Frit, R., **(81k:54002)**

- Koubek, Václav See Adámek, Jiří, **(81c:18013)**

- Lam, Kah Seng (with Lim, Chong Keang) Categorical equivalence of ideals and open sets. **(81d:06018)**

- Lim, Chong Keang See Lam, Kah Seng, **(81d:06018)**

- Miskin, V. V. Inductively irreducible epimorphisms. **(81m:18002)**

- Mysior, Adam See Hajek, Darrell W., **(81j:18009)**

- Nakagawa, R. See Herrlich, Horst; et al., **(81f:18006)**

- Nel, L. D. See Hong, S. S., **(81c:18010)**

- Porst, Hans-Eberhard A survey on the categorical treatment of dualities. **(81c:18003)**

- See also Structure of topological categories, **(81a:18001)**

- Raghavan, T. G. (with Reilly, Ivan) On projective and injective objects in some topological categories. **(81f:18004)**

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- Salicrup López, Graciela Epireflexivity and connexity in concrete topological categories. (Spanish) **(81j:18010)**

- See also Herrlich, Horst; et al., **(81f:18006)**

- Strecker, George E. See Adámek, Jiří; et al., **(81d:18009)** and Herrlich, Horst; et al., **(81f:18006)**

- Tholen, Walter (with Wischnewsky, Manfred Bernd) Structure functors. External characterizations. **(81f:18011)**

- Thomason, R. W. First quadrant spectral sequences in algebraic K -theory. **(81c:18018)**

- Titcomb, T. See Herrlich, Horst; et al., **(81f:18006)**

- Trombetta, Maurizio Convergence structures for filters. (Italian) **(81d:54002)**

- Ungar, Šime The van Kampen theorem for fundamental pro-groups. (Russian summary) **(81h:55010)**

- Vázquez, R. See Herrlich, Horst; et al., **(81f:18006)**

- Vilimovský, J. Uniformly locally uniformly continuous functions. **(81k:54039)**

- Wagner, Elzbieta Convergence in category. (Italian summary) **(81b:54019)**

- Wischnewsky, Manfred Bernd A generalized duality theorem for structure functors. **(81d:18002)**

- Topologically-algebraic structure functors \equiv full reflective or coreflective restrictions of semitopological functors. **(81g:18007)**

- See also Tholen, Walter, **(81f:18011)** and Structure of topological categories, **(81a:18001)**

- Bremen ★Structure of topological categories. **(81a:18001)**

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- Structure of Topological Categories ★Structure of topological categories. **(81a:18001)**

- Structure of topological categories ★Structure of topological categories. **(81a:18001)**

- Topological categories ★Structure of topological categories. **(81a:18001)**

54B35 Spectra

- Hoffmann, Rudolf-Eberhard Sobrification of partially ordered sets. **81c:54013**

54B40 Presheaves and sheaves [See also 18F20.]

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- Adelman, M. Points in topoi of sheaves over distributive lattices. **(81c:18007)**
 Cornish, William H. An ordered sheaf representation of subresiduated lattices. **(81m:06025)**
 Kennison, John F. Triples and compact sheaf representation. **(81m:18005)**
 Reynolds, George On the spectrum of a real representable ring. **(81c:18008)**

54B99 None of the above, but in this section

- Mandelkern, Mark Resolutions on the line. **81m:54018**

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- Arhangel'skii, A. V. The principle of τ approximation and a test for equality of dimension of compact Hausdorff spaces. (Russian) **(81m:54067)**
 Balasubramanian, G. (with Harianandachary, T. V. H.) α_P - P spaces. **(81a:54010)**
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54Cxx Maps and general types of spaces defined by maps

54C05 Continuous maps

- Costovici, Gh. Rectangular continuity. (Romanian summary) **81f:54006**

- (Fedorchuk, V. V.) See Piotrowski, Zbigniew; et al. 81f:54007
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- Balkirov, A. I. On continuous maps of Isbell spaces and strong 0-dimensionality. (Russian summary) (81g:54022a)
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- Garrett, B. D. An erroneous argument. (81f:26010)
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- Burke, Dennis K. Closed mappings. 81c:54014
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 Bennett, H. R. On open-compact images of metacompact spaces. (81m:54032)
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- (Grothendieck, Alexandre) See Malgoure, Jean; et al. (81m:57005)
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- Paściński, Lech Retracts in metric spaces. 81a:54016
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- Borges, Carlos R. Free groups, symmetric and reduced products. (81a:22002)
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54C20 Extension

- Gutek, Andrzej On extending homeomorphisms on the Cantor set. 81d:54009
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- van Douwen, Eric K. Characterizations of βQ and βR . (81d:54017)
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54C40 $C(X)$; algebraic techniques (ideals, etc.) [See also 46J10.]

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Hager, Anthony W. Correction: "Semicompact cozero-fields and uniform spaces" [Rocky Mountain J. Math. 9 (1979), no. 3, 447-452; MR 80d:54033]. (81f:54014)

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 Čoban, M. M. Open mappings and classes of spaces. (Russian) (81c:54027)

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- Burke, Dennis K. Refinements of locally countable collections. (81h:54020)
 Gittings, Raymond F. Characterizations of spaces by embeddings in βX . (81g:54020)
 Kułpa, Władysław GO -spaces and p -spaces. (81m:54064)
 van Wouwe, J. M. GO -spaces and (generalized) metrizable spaces. (81d:54023)

54E20 Stratifiable spaces, cosmic spaces, etc.

- Borges, Carlos R. A note on un-Baireable stratifiable spaces. (81d:54021)
 A stratifiable k_R -space which is not a k -space. (81k:54042)

Dela, Gabriel Quelques propriétés des espaces α -favorables et applications aux convexes compacts. (English summary) **81m:54055**

Foged, L. A countable k -space that is not stratifiable. **81k:54043**

54E25 Semimetric spaces

Stephenson, R. M., Jr. Symmetrizable spaces and separability. **81m:54056**

secondary classifications:

Davis, S. W. (with Stephenson, R. M., Jr.) Separability and minimal weak base topologies. **(81j:54037)**

Domiaty, R. Z. (with Laback, O.) Semimetric spaces in general relativity (the Hawking-King-McCarthy path topology). (Russian) **(81h:83029)**

Gittings, Raymond F. Characterizations of spaces by embeddings in βX . **(81g:54020)**

Laback, O. See Domiaty, R. Z., **(81h:83029)**

Reichel, H.-C. Towards a unified theory of semimetric and metric spaces. **(81k:54047)**

Smirnov, Ju. M. See Domiaty, R. Z.; et al., **(81h:83029)**

Stephenson, R. M., Jr. See Davis, S. W., **(81j:54037)**

54E30 Moore spaces

Brandenburg, Harald Some characterizations of developable spaces. **81g:54027**

de Caux, Peter A nondegenerate α -discrete Moore space which is connected. **81m:54058**

Devlin, Keith J. (with Shelah, Saharon) A note on the normal Moore space conjecture. **81d:54022**

van Douwen, Eric K. (with Wage, Michael L.) Small subsets of first countable spaces. **81f:54015**

Njånes, Peter J. Some normal Moore spaces. **81m:54057**

A provisional solution to the normal Moore space problem. **81k:54044**

Shelah, Saharon See Devlin, Keith J., **81d:54022**

Tall, Franklin D. The normal Moore space problem. **81f:54016**

Wage, Michael L. See van Douwen, Eric K., **81f:54015**

Wicke, H. H. (with Worrell, J. M., Jr.) The development of generalized base of countable order theory. **81b:54028**

Worrell, J. M., Jr. See Wicke, H. H., **81b:54028**

secondary classifications:

Burke, Dennis K. Refinements of locally countable collections. **(81h:54020)**

Carlson, John W. Developable spaces and nearness structures. **(81j:54047)**

Davis, S. W. (with Stephenson, R. M., Jr.) Separability and minimal weak base topologies. **(81j:54037)**

Fleissner, William G. (with Miller, Arnold W.) On Q sets. **(81i:03077)**

Gittings, Raymond F. Characterizations of spaces by embeddings in βX . **(81g:54020)**

Miller, Arnold W. See Fleissner, William G., **(81i:03077)**

Stephenson, R. M., Jr. See Davis, S. W., **(81j:54037)**

54E35 Metric spaces, metrizable

Arosio, Alberto (with Ferreira, Artur Vaz) Sur la compactification des espaces métrisables 0-dimensionnels. (English summary) **81j:54048**

Delhaye, Jean-Paul A counterexample concerning iteratively generated sequences. **81j:54049**

Ferreira, Artur Vaz See Arosio, Alberto, **81j:54048**

Grochulski, J. (with Konik, T.; Tkacz, M.) On the equivalence of certain relations of tangency of arcs in metric spaces. **81h:54034**

Hamburger, Péter (with Juhász, István; Weiss, William A. R.) A generalization of uniform bases. **81g:54028**

Hung, H. H. An alternative to Bing's generalization of Urysohn's metrization theorem. **81m:54059**

Juhász, István See Hamburger, Péter; et al., **81g:54028**

Kofner, Jacob Quasimetrizable spaces. **81m:54060**

Konik, T. See Grochulski, J.; et al., **81h:54034**

Logan, G. J. On the representation of metric spaces. **81k:54045**

Przymusiński, Teodor C. The existence of Q -sets is equivalent to the existence of strong Q -sets. **81k:54046**

Reichel, H.-C. Towards a unified theory of semimetric and metric spaces. **81k:54047**

Salmon, Ronald The metrizable of the unified space. **81g:54029**

Selvá-Traková, Věra Homeomorphisms of powers of metric spaces. **81c:54047**

Székely-Nagy, Renée Quasi- and weakly-quasi-first-countable spaces. **81g:54030**

Timoshin, V. L. Nagata spaces and w -spaces. (Russian) **81h:54035**

Tkacz, M. See Grochulski, J.; et al., **81h:54034**

Weiss, William A. R. See Hamburger, Péter; et al., **81g:54028**

van Wouwe, J. M. GO-spaces and (generalized) metrizable. **81d:54023**

secondary classifications:

Aubin, Jean-Pierre ★Applied abstract analysis. **(81c:54001)**

Ragozin, Z. Relative countable compactness. (Russian) **(81k:54041)**

Capiński, A. Ć. Axiomatics of a large inductive dimension. (Russian. Georgian and English summaries) **(81c:54054)**

(Carnat, Bernard) See Aubin, Jean-Pierre, **(81c:54001)**

Dickman, R. F., Jr. Peano compactifications and property S metric spaces. **(81k:54017)**

van Douwen, Eric K. (with Lutzer, David J.; Pelant, Jan; Reed, G. M.) On unions of metrizable subspaces. **(81b:54008)**

Gardner, R. J. Results and conjectures on covering metric spaces. **(81g:28006)**

Gittings, Raymond F. Characterizations of spaces by embeddings in βX . **(81g:54020)**

Hausdorff, R. W. Some consequences of $(V=L)$ in the theory of analytic sets. **(81j:54058)**

Hanič, Miroslav Convergence versus character in compact spaces. **(81m:54010)**

Kawaguchi, Akitsugu On the relation between multimetric spaces of Gähler and areal

spaces. **(81k:53062)**

Klebanov, B. S. Subspaces of products of metric spaces. (Russian) **(81c:54008)**

Kočetkov, D. V. ★Построение алгоритма вычисления расстояний для одного класса метрических пространств. (Russian) [Construction of an algorithm for calculating distances for a class of metric spaces] **(81m:52003)**

(Labrousse, Carole) See Aubin, Jean-Pierre, **(81c:54001)**

Lutzer, David J. See van Douwen, Eric K.; et al., **(81b:54008)**

(Moutin, Hervé) See Aubin, Jean-Pierre, **(81c:54001)**

Pelant, Jan See van Douwen, Eric K.; et al., **(81b:54008)**

Reed, G. M. See van Douwen, Eric K.; et al., **(81b:54008)**

Soltan, V. P. Metrically extremal and boundary points of convex sets in a normed space. (Russian) **(81k:46016)**

Tardiff, Robert M. On a functional inequality arising in the construction of the product of several metric spaces. **(81c:39013)**

54E40 Isometries, contractions, expansions

Katkov, M. L. Inversion of the contraction mapping principle for generalized nonexpanding operators. (Russian) **81f:54017**

Laukkainen, Jouni Rings of functions in Lipschitz topology. **81c:54048**

Stranžalo, P. Kompaktheitseigenschaften der Gruppe der Isometrien metrischer Räume. **81k:54036**

Valdiz, Jussi Lipschitz homeomorphisms of the Hilbert cube. **81d:54024**

secondary classifications:

Ahline, Claudi (with Trillas Ruiz, Enrique) On natural metrics. **(81d:08001)**

Feinberg, V. Z. See Nosova, E. G., **(81d:54033)**

Nosova, E. G. (with Feinberg, V. Z.) T -complete ultrametric spaces and their auto-isometry groups. (Russian. English summary) **(81d:54033)**

Stranžalo, P. Eigentlich operierende Gruppen von Isometrien. (English summary) **(81f:54025)**

Trillas Ruiz, Enrique See Ahline, Claudi, **(81d:08001)**

54E45 Compact (locally compact) metric spaces

secondary classifications:

Babiker, A. G. A. G. Measurability of sections for maps representing certain measures. **(81g:28015)**

Bridges, Douglas S. A criterion for compactness in metric spaces? **(81h:03115)**

Rodabaugh, S. E. Upper semicontinuous decompositions of convex metric spaces. **(81i:54008)**

54E50 Complete metric spaces

Krugljak, N. Ja. A family of metric spaces. (Russian) **81b:54029**

Sarbadžikari, H. Selection theorems for partitions of complete metric spaces. **81h:54037**

secondary classifications:

Achari, J. A result on fixed points. **(81a:54045)**

Fisher, Brian Mappings satisfying rational inequalities. **(81j:54032)**

Hegedüs, Miklós (with Szilágyi, Tivadar) Equivalent conditions and a new fixed point theorem in the theory of contractive type mappings. **(81g:54061)**

Maharam, Dorothy (with Stone, A. H.) Category algebras of complete metric spaces. **(81a:54040)**

van Mill, Jan A simple observation concerning the existence of non-limit points in small compact F -spaces. **(81d:54029)**

Nemec, A. G. The metric dimension of complete spaces. (Russian. English summary) **(81h:54045)**

Porada, E. Jeu de Choquet. **(81d:54004)**

Rhoades, B. E. A fixed-point theorem in metric spaces. **(81j:54077)**

Rus, Ioan A. Some remarks on the common fixed point theorems. **(81m:54080)**

Shih, Mou Hsiang Fixed points for mappings majorized by real functionals. **(81g:54068)**

Stone, A. H. See Maharam, Dorothy, **(81a:54040)**

Szilágyi, Tivadar See Hegedüs, Miklós, **(81g:54061)**

54E52 Completions, Baire category

Feyel, Denis Relations entre ensembles clairsemés et ensembles semi-polaires. (English summary) **81k:54048**

Hofmann, Karl Heinrich A note on Baire spaces and continuous lattices. **81k:54049**

secondary classifications:

Borges, Carlos R. A note on un-Baireable stratifiable spaces. **(81d:54021)**

Feinberg, V. Z. See Nosova, E. G., **(81d:54033)**

Habre, William Partition continue de l'unité et C -repletion. (English summary) **(81c:46018)**

Irwin, James M. (with Kent, Darrell C.) Sequential Cauchy spaces. (Russian summary) **(81g:54002)**

Kent, Darrell C. See Irwin, James M., **(81g:54002)**

Krugljak, N. Ja. A family of metric spaces. (Russian) **(81b:54029)**

Nosova, E. G. (with Feinberg, V. Z.) T -complete ultrametric spaces and their auto-isometry groups. (Russian. English summary) **(81d:54033)**

Zamfirescu, Tudor Inscribed and circumscribed circles to convex curves. **(81j:52004)**

54E55 Bitopologies

Dvalištvi, B. P. Bicomact extension of bitopological spaces. (Russian) **81j:54050**

Koh, Hyung Joo Separation axioms in bitopological spaces. **81m:54061**

- Purook, C. M. Bitopological spaces and quasimetric spaces. **81m:54062**
 Swart, Johan Pairwise C -compact spaces. **81c:54049**

secondary classifications:

- Arya, Shashi Prabha (with Singhal, A.) Separation axioms in bitopological ordered spaces. (Serbo-Croatian summary) (**81k:54018**)
 Goel, C. K. See Vasudevan, R., (**81k:54009**)
 Salbany, Sergio An embedding theorem for k -compact spaces. (**81c:54037**)
 Singhal, A. See Arya, Shashi Prabha, (**81k:54018**)
 Vasudevan, R. (with Goel, C. K.) Pairwise compactness in bitopological hyperspaces. (Serbo-Croatian summary) (**81k:54009**)

54E60 CW-complexes, triangulable spaces

secondary classifications:

- Motreanu, Dumitru Singular homology of some adjunction spaces more general than CW-complexes. (**81m:55008**)

54E65 Countability conditions, separability

- Cullina, Alberto The topology union of two second countable topologies is not first countable. (Italian summary) **81c:54050**

secondary classifications:

- Juhász, István A survey of S - and L -spaces. (**81j:54001**)
 McCoy, R. A. Countability properties of function spaces. (**81m:54021**)
 Neubrunnová, Anna Transfinite convergence and locally separable metric spaces. (Slovak and Russian summaries) (**81j:54028**)
 Rudin, Mary Ellen S and L spaces. (**81d:54003**)
 Wattel, E. A hereditarily separable compact ordered space X for which λX is not first countable. (**81c:54038**)

54E99 None of the above, but in this section

- Bennett, H. R. Quasimetrizability and the γ -space property in certain generalized ordered spaces. **81m:54063**
 Calre, Luisella (with Cerruti, Umberto) Fuzzy-relational spaces. (Italian summary) **81h:54038**
 Cerruti, Umberto See Calre, Luisella, **81h:54038**
 Desik, E. Untersuchungen über Richtungsstrukturen. I. Weitere Beziehungen der Richtungsdimension zu den klassischen Dimensionen für gewisse Klassen topologischer Räume. **81k:54050**
 Untersuchungen über Richtungsstrukturen. II. Über \mathcal{R} -Intervallsysteme von allgemeiner Lage. **81k:54051**
 Untersuchungen über Richtungsstrukturen. III. Über die Reichweite des \mathcal{R} -Kompaktifizierungsverfahrens. **81k:54052**
 Dranishnikov, A. N. On zero-dimensional counterimages of Dugundji spaces. (Russian) **81k:54053**
 Marny, Thomas Limit-metrizability of limit spaces and uniform limit spaces. **81b:54030**

secondary classifications:

- Ahina, Claudi Product, convexification and completion of generalized and probabilistic metric spaces. (Spanish) (**81j:08002**)
 Császár, Ákos (with Laczkovich, M.) Discrete and equal convergence. (**81c:54013**)
 Hoffmann, Rudolf-Eberhard Note on universal topological completion. (**81a:54011**)
 Ivanov, A. A. Structures of topological type. (Russian) (**81c:54004**)
 Kalantari, Iraj (with Retzlaff, Allen) Recursive constructions in topological spaces. (**81f:03099**)
 Laczkovich, M. See Császár, Ákos, (**81c:54013**)
 Nummela, Eric C. The completion of a topological group. (**81m:22001**)
 Retzlaff, Allen See Kalantari, Iraj, (**81f:03099**)
 Richardson, Gary D. Applications of convergence spaces. (**81d:54001**)
 Sharma, Ashok K. A generalization of Banach contraction principle to 2-metric spaces. (**81d:54038**)
 Sirois-Dumas, Renée Quasi- and weakly-quasi-first-countable spaces. (**81g:54030**)
 Vasil'ev, A. I. Delta-compactness of the algebraic sum of sets. (Russian) (**81c:41052**)

54Fxx Special properties

54F05 Ordered topological spaces, partially ordered spaces [See also 06B30, 06F30.]

- Emeryk, Adam (with Frankiewicz, Ryszard; Kulpa, Władysław) Orderability of GO-spaces. **81d:54025**
 Fleissner, William G. Remarks on Souslin properties and tree topologies. **81k:54054**
 Frankiewicz, Ryszard See Emeryk, Adam; et al., **81d:54025**
 Kulpa, Władysław A factorization theorem for GO-spaces. **81c:54028**
 GO-spaces and p -spaces. **81m:54064**
 See also Emeryk, Adam; et al., **81d:54025**
 Lihová, Judita Some properties of an ordering relation on certain classes of functors. **81k:54055**
 Lutzer, David J. Ordered topological spaces. **81d:54026**

- Marr, J. M. (with Muenzenberger, T. B.) Betweenness in ordered spaces. **81a:54028**
 Moran, Gadl On scattered compact ordered sets. **81j:54051**
 Muenzenberger, T. B. See Marr, J. M., **81a:54028**
 Park, Bao-Hum On Wallman-type extensions. **81g:54031**
 Ward, L. E., Jr. A note on Whitney maps. **81k:54056**
 Williams, Nick Universe developable spaces. **81j:54052**

secondary classifications:

- Arosio, Alberto (with Ferreira, Artur Vaz) Sur la compactification des espaces métrisables 0-dimensionnels. (English summary) (**81j:54048**)
 Aumann, Georg Katastrophentheorie auf Verbänden. (**81a:06004a**)
 Katastrophentheorie auf Verbänden. II. (**81a:06004b**)
 Bennett, H. R. Quasimetrizability and the γ -space property in certain generalized ordered spaces. (**81m:54063**)
 Clocnca, G. An abstract generalization of the concepts of limit and semicontinuity in ordered function spaces. (Italian summary) (**81j:54022**)
 Dimitrijević, Radoslav On proximity ordered spaces. (**81c:54043**)
 Erné, Marcel Separation axioms for interval topologies. (**81d:54012**)
 Ferreira, Artur Vaz See Arosio, Alberto, (**81j:54048**)
 Hoffmann, Rudolf-Eberhard Essentially complete T_0 -spaces. (**81c:54060**)
 Ipate, D. M. Structural analysis of multivalent mappings. (Russian) (**81b:54020**)
 Lihová, Judita On topologies convexly compatible with the ordering. (**81a:06009**)
 Park, Young Soo Wallman's type order compactifications. II. (**81k:54030**)
 Wigner, D. Two notes on frames. (**81d:06016**)
 van Wouwe, J. M. GO-spaces and (generalized) metrizable. (**81d:54023**)

54F15 Continua and generalizations

- Charatonik, J. J. Generalized homogeneity and some characterizations of the pseudo-arc. **81k:54057**
 Hadživanov, Nikolai G. (with Hamardžiev, Atanas L.) An example of a compact Hausdorff space which is M -connected but is not strongly M -connected. (Bulgarian summary) **81a:54029**
 Hamardžiev, Atanas L. See Hadživanov, Nikolai G., **81a:54029**
 Russo, Ray L. Universal continua. **81b:54031**

secondary classifications:

- Cain, George L., Jr. Properties of $\beta X - X$ for locally connected generalized continua. (**81d:54016**)
 Marr, J. M. (with Muenzenberger, T. B.) Betweenness in ordered spaces. (**81a:54028**)
 Muenzenberger, T. B. See Marr, J. M., (**81a:54028**)
 Oversteegen, Lex G. Open retractions and locally confluent mappings of certain continua. (**81j:54018**)
 Winslow, Alicia Browner There are 2^c nonhomeomorphic continua in $\beta \mathbb{R}^n - \mathbb{R}^n$. (**81a:54025**)

54F20 Special types of continua

- Bellamy, David P. Homeomorphisms of composants. **81b:54032**
 A tree-like continuum without the fixed-point property. **81b:54039**
 Brechner, Beverly (with Erkama, Timo) On topologically and quasiconformally homogeneous continua. **81c:54051**
 Prime ends, indecomposable continua, and the fixed point property. **81j:54053**
 Čertanov, G. I. Trees and linearly ordered bicomponents. (Russian) **81h:54040**
 Charatonik, J. J. The set function T and homotopies. **81a:54030**
 Claytor, Schiefelkin Peanian continua not imbeddable in a spherical surface. (See **81c:00004**)
 Cook, H. (with Lelek, Andrzej) Weakly confluent mappings and atriodic Suijin curves. **81a:54031**
 Czuba, Stanisław T. The set function T and R -continuum. (Russian summary) **81a:54032**
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 Grace, E. E. (with Vought, Eldon J.) Monotone decompositions of θ_α -continua. **81k:54058**
 Grispotakis, J. (with Tymchatyn, E. D.) Confluent images of rational continua. **81c:54052**
 Gutek, Andrzej A generalization of solenoids. **81k:54059**
 Hagopian, Charles L. Uniquely arcwise connected plane continua have the fixed-point property. **81a:54033**
 Krupski, P. Continua which are homogeneous with respect to continuity. **81h:54041**
 Lau, August Yiu Wa Certain local homeomorphisms of continua are homeomorphisms. II. (Russian summary) **81g:54032**
 Lelek, Andrzej See Cook, H., **81a:54031**
 Maćkowiak, T. Continuous mappings on continua. **81a:54034**
 Martin, John R. Fixed point sets of LC^∞ , C^∞ continua. **81k:54060**
 van Mill, Jan A Peano continuum homeomorphic to its own square but not to a countable infinite product. **81k:54061**
 Oversteegen, Lex G. Every contractible fan is locally connected at its vertex. **81c:54053**
 Rakowski, Zbigniew M. Concerning decompositions of continua. **81g:54033**
 Remarks on weakly contractible Hausdorff curves. **81m:54065**
 Smith, Michel Large indecomposable continua with only one component. **81k:54063**
 Tymchatyn, E. D. See Grispotakis, J., **81c:54052**
 Ustinov, Ju. I. Continuous mappings of one-dimensional solenoids. (Russian) **81k:54050**
 Vought, Eldon J. On decompositions of hereditarily unicoherent continua. **81f:54011**
 See also Grace, E. E., **81k:54058**

secondary classifications:

- Andriev'skii, V. V. Some properties of continua with a piecewise quasiconformal boundary. (Russian) (81k:30049)
- Bula, Witold On compact Hausdorff spaces having finitely many types of open subsets. (81k:54064)
- Czuba, Stanisław T. The notion of pointwise smooth dendroids. (Russian) (81e:54034)
- Grispolakis, J. (with Tymchatyn, E. D.) Continua which are images of weakly confluent mappings only. I. (81d:54008)
- Ivanov, A. V. See Czuba, Stanisław T., (81e:54034)
- Mańka, Roman Fixed point theorems for λ -dendroids. (81k:54078)
- Martin, John R. (with Tymchatyn, E. D.) Fixed point sets of 1-dimensional Peano continua. (81m:54078)
- Minc, Piotr Fixed points and locally connected cyclic continua in E^3 . (81i:54036)
- Nadler, Sam B., Jr. Fixed points for confluent maps onto disks. (81e:54042)
- Tymchatyn, E. D. See Grispolakis, J., (81d:54008) and Martin, John R., (81m:54078)
- van de Vel, Marcel Some elementary proofs in fixed point theory. (81m:54083)

54F25 Peano spaces and generalizations

- Dekking, F. M. Variations on Peano. 81m:54066
- Kellum, Kenneth R. Almost continuous images of Peano continua. 81j:54054

secondary classifications:

- Dickman, R. F., Jr. Peano compactifications and property S metric spaces. (81k:54017)
- Magill, Kenneth D., Jr. (with Subbiah, S.) Another semigroup characterization of the simple closed curve. (81f:20091)
- Oversteegen, Lex G. Every contractible fan is locally connected at its vertex. (81e:54029)
- Robinson, Eric E. Inverse systems for light-open mappings onto polyhedra. (81b:57031)
- Subbiah, S. See Magill, Kenneth D., Jr., (81f:20091)

54F30 Cyclic elements

54F35 Higher dimensional local connectedness [See also 55Mxx, 55Nxx.]

secondary classifications:

- Unger, Šime On local homotopy and homology pro-groups. (Serbo-Croatian summary) (81h:55009)

54F40 Compact (locally compact) absolute neighborhood retracts

secondary classifications:

- Boxer, Laurence Global properties of spaces of ARs. (81m:54017)
- Jakobsche, W. The Bing-Borsuk conjecture is stronger than the Poincaré conjecture. (81i:57007)
- van Mill, Jan (with van de Vel, Marcel) On an internal property of absolute retracts. (81j:54024)
- Smirnov, Ju. M. Shape theory and continuous transformation groups. (Russian) (81g:54034)
- van de Vel, Marcel See van Mill, Jan, (81j:54024)

54F43 Shape theory [See mainly 55P55, 57N25.]

- Boxer, Laurence (with Sher, Richard B.) Borsuk's fundamental metric and shape domination. (Russian summary) 81e:54030
- Dydak, Jerzy On LC^* -divisors. 81d:54027
- (with Segal, Jack) Strong shape theory: a geometrical approach. 81h:54042
- Holčtyński, W. Shape triviality and metric contractions. 81e:54031
- Kotani, S. S. Movability and extension of fundamental sequences. (Russian) 81i:54021
- Nowak, Sławomir Remarks on some shape properties of the components of movable continua. (Russian summary) 81a:54035
- Sanders, T. J. A finiteness condition in CG-shape. 81i:54022
- Segal, Jack See Dydak, Jerzy, 81h:54042
- Sher, Richard B. See Boxer, Laurence, 81e:54030
- Smirnov, Ju. M. Shape theory and continuous transformation groups. (Russian) 81g:54034

secondary classifications:

- Agarajan, V. V. (with Smirnov, Ju. M.) Ljusternik-Snirel'man category for pro-categories. (Russian) (81a:55006)
- Kozłowski, George (with Walsh, John J.) The cell-like mapping problem. (81e:54033)
- Krasinkiewicz, Józef (with Minc, Piotr) Generalized paths and pointed 1-movability. (81h:55028)
- Minc, Piotr See Krasinkiewicz, Józef, (81h:55028)
- Smirnov, Ju. M. See Agarajan, V. V., (81a:55006)
- Walsh, John J. See Kozłowski, George, (81e:54033)
- Winkow, Alicia Browner There are 2^c nonhomeomorphic continua in $\beta\mathbb{R}^n - \mathbb{R}^n$. (81a:54025)

54F45 Dimension theory [See also 55M10.]

- Adamek, Dušan The dimension Dim of topological spaces. (Russian) 81f:54019

- Arhangel'skii, A. V. The principle of τ approximation and a test for equality of dimension of compact Hausdorff spaces. (Russian) 81m:54067
- Bruljning, Jeroen (with Nagata, Jun-iti) New characterizations of covering dimension. 81f:54020

A characterization of dimension of topological spaces by totally bounded pseudometrics. 81g:54035

(with Nagata, Jun-iti) A characterization of covering dimension by use of $\Delta_n(X)$. 81h:54043

- Butcher, G. H. An extension of the sum theorem of dimension theory. (See 81e:00004)

Bizzi, Svetlana Dimension and metrization of uniform spaces. 81e:54053

Charalambous, M. G. An example concerning inverse limit sequences of normal spaces. 81e:54032

Čigodice, A. Č. Axiomatics of the dimension dim in completely regular spaces. (Russian. Georgian and English summaries) 81a:54036

Axiomatics of a large inductive dimension. (Russian. Georgian and English summaries) 81e:54054

Engelking, R. Transfinite dimension. 81g:54036

Filippov, V. V. The dimension of products of topological spaces. (Russian. English summary) 81i:54023

Gresham, John H. A class of infinite-dimensional spaces. II. An extension theorem and the theory of retracts. 81k:54063

Grinblat, L. Š. (with Nishiura, Togo) Partition of topological spaces into zero-dimensional subsets. 81m:54068

Hadživanov, Nikolai G. (with Todorov, V.) Generalization of a theorem of Mazurkiewicz. (Russian) 81a:54037

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55M25 Degree, winding number

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55M30 Ljusternik-Schnirelman (Šnirel'man) category of a space

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55M35 Finite groups of transformations (including Smith theory) [See also 57S17]

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55Nxx Homology and cohomology theories [See also 57Txx.]

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- Fret, Armin Kan extensions along full functors: Kan and Čech extensions of homotopy invariant functors. **81b:55006**
- Huber, Martin (with Meier, Willi) Linearly compact groups. **81c:55005**
- Meier, Willi See Huber, Martin, **81c:55005**
- Reed, Robert E. Foundations of Vietoris homology theory with applications to noncompact spaces. (Russian) **81h:55002**

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- Calder, Allan (with Siegel, Jerrold) Kan extensions of homotopy functors. (**81b:55032**)
- Karimov, U. H. Generalized homotopy axiom. (Russian. Tajiki summary) (**81c:55008**)
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- Skjåvrenko, E. G. On the homology theory associated with Aleksandrov-Čech cohomology. (Russian) (**81c:55006**)

55N07 Steenrod-Sitnikov homologies

- Berikavili, N. A. The Steenrod-Sitnikov homology theory on the category of compact spaces. (Russian) **81m:55005**
- Skjåvrenko, E. G. On the homology theory associated with Aleksandrov-Čech cohomology. (Russian) **81c:55006**

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- Bauer, Friedrich-Wilhelm S -duality and shape theory. (Russian) (**81h:55004**)

55N10 Singular theory

- Calogno, Enrico On the integer cohomology of differentiable manifolds. (Italian. English summary) **81c:55006**

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- McCrury, Clint Zeeman's filtration of homology. (**81b:55002**)

55N15 K -theory [For algebraic K -theory, see 18F25.]

- Bödigheimer, C.-F. Splitting the Künneth sequence in K -theory. II. **81b:55007**
- Carlsson, Gunnar On the stable splitting of $bo/\langle bo \rangle$ and torsion operations in connective K -theory. **81j:55003**
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- Mudrinski, V. On K -theory between the products of complex projective spaces. (See **81i:54001**)
- Özlüm, Hicmet On stable James numbers of stunted complex or quaternionic projective spaces. **81b:55008**
- On F -projective stable stems. **81b:55009**
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- Bojanowska, Agnieszka (with Jackowski, Stefan) A spectral sequence convergent to equivariant K -theory. (**81m:57028**)
- Douglas, Ronald G. Extensions of C^* -algebras and algebraic topology. (**81i:46094**)
- Fack, Thierry (with Maréchal, O.) Application de la K -théorie algébrique aux C^* -algèbres. (**81i:46093**)
- Hodgkin, Luke (with Snaith, Victor P.) The K -theory of some more well-known spaces. (**81f:55014**)
- Jackowski, Stefan See Bojanowska, Agnieszka, (**81m:57028**)
- Kasparov, G. G. The operator K -functor and extensions of C^* -algebras. (Russian) (**81m:58075**)
- Mandelbaum, Richard Four-dimensional topology: an introduction. (**81j:57001**)
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- Snaith, Victor P. See Miller, Haynes, (**81b:55025**) and Hodgkin, Luke, (**81f:55014**)

55N20 Generalized (extraordinary) homology and cohomology theories

- Bairamov, S. A. K_G -functor on a category of inverse spectra of topological spaces. (Russian. Azerbaijani and English summaries) **81c:55007**
- Boardman, J. M. Graded Eilenberg-Mac Lane ring spectra. **81m:55007**
- Inoue, Yoshihiro P -homology theories, P -cohomology theories and duality. **81a:55009**
- Martin, Alvin Frank Multiplications on cohomology theories with coefficients. **81c:55008**
- Petkova, Stanislava V. Additive cohomology theories on certain categories of topological spaces. (Russian) **81c:55009**
- Ravenel, Douglas C. (with Wilson, W. Stephen) The Morava K -theories of Eilenberg-Mac Lane spaces and the Conner-Floyd conjecture. **81i:55005**
- Steiner, Richard Decompositions of groups of units in ordinary cohomology. **81c:55007**
- Wilson, W. Stephen See Ravenel, Douglas C., **81i:55005**
- Yagita, Nobuaki Brown-Peterson cohomology groups of exceptional Lie groups. **81g:55006**

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- Haas, Ronald Kirk (with Uehara, Hiroshi) A note on Thom classes in general cohomology. (**81k:55030**)
- Mahowald, Mark E. Ring spectra which are Thom complexes. (**81f:55010**)
- Uehara, Hiroshi See Haas, Ronald Kirk, (**81k:55030**)

55N22 Bordism and cobordism theories, formal group laws [See also 14L05, 57R75, 57R77, 57R85, 57R90.]

- Astey, Luis Geometric dimension of bundles over real projective spaces. **81j:55004**
- Johnson, David Copeland (with Yoshimura, Zen-ichi) Torsion in Brown-Peterson homology and Hurewicz homomorphisms. **81b:55010**
- Kochman, Stanley O. The symplectic cobordism ring. I. **81c:55010**
- Kultze, Rolf Das Ringspektrum $M\text{SOZ}$ $\{\}$. **81g:55007**
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- Priddy, Stewart A cellular construction of BP and other irreducible spectra. **81i:55006**
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- Šukurov, A. V. Topological applications of the tool of formal diffeomorphisms of the line. (Russian) (**81j:55021**)
- Stong, R. E. Algebraic classification of diffeomorphisms. (**81d:57023**)
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55N25 Homology with local coefficients, equivariant cohomology

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55N30 Sheaf cohomology [See also 18F20, 32C35, 32L10.]

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55N35 Other homology theories

- Amici, Oriella M. (with Casciaro, Biagio C.) Relations between the regular homology of graphs and the classical homology of polyhedra. (Italian. English summary) **81b:55013**
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- Effros, Edward G. Aspects of noncommutative geometry. (**81m:46100**)
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55N40 Axioms for homology theory and uniqueness theorems

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55P42 Stable homotopy theory, spectra

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- Hageligan, Nancy L. Local spaces with three cells as *H*-spaces. **(81h:55014)**

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- Friedlander, Eric M. The infinite loop Adams conjecture via classification theorems for \mathcal{S} -spaces. **81b:55023**
- Kraines, David (with Lada, Thomas) A counterexample to the transfer conjecture. **81b:55024**
- Lada, Thomas See Kraines, David, **81b:55024**
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- Miller, Haynes (with Snaith, Victor P.) On the *K*-theory of the Kahn-Priddy map. **81b:55025**
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- Wolfson, Richard Hyper-*T*-spaces and hyperspectra. **81b:55026**

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- Cohen, Ralph L. Stable proofs of stable splittings. **(81f:55004)**
- Hodgkin, Luke (with Snaith, Victor P.) The *K*-theory of some more well-known spaces. **(81f:55014)**
- Loday, Jean-Louis Homotopie des espaces de concordances [d'après F. Waldhausen]. **(81h:57006)**
- Madsen, Ib Henning (with Milgram, R. James) ★The classifying spaces for surgery and cobordism of manifolds. **(81b:57014)**
- Milgram, R. James See Madsen, Ib Henning, **(81b:57014)**
- Simons, Nathan F., Jr. On stable homotopy in Frobenius categories. **(81j:55024)**
- Snaith, Victor P. See Hodgkin, Luke, **(81f:55014)**
- Steiner, Richard Decompositions of groups of units in ordinary cohomology. **(81e:55007)**
- (Waldhausen, Friedhelm) See Loday, Jean-Louis, **(81h:57006)**

55P50 Category and cocategory, etc.

- James, I. M. On fibre spaces and nilpotency. **81j:55009a**
- On fibre spaces and nilpotency. **II. 81j:55009b**

55P55 Shape theory [See also 54C56, 54F43, 55Q07.]

- Čerin, Zvonko The shape category of a shape map. **81b:55027**
- Duvall, P. F., Jr. (with Husch, L. S.) Fundamental dimension and suspension of approximate fibrations. **81e:55015**
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- Lisica, Ju. T. Strong cohape theory. (Russian) **81k:55015**
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- Bauer, Friedrich-Wilhelm \mathcal{S} -duality and shape theory. (Russian) **(81h:55004)**
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- Dydak, Jerzy On LC^* -divisors. **(81d:54027)**
- Geoghegan, Ross A note on the vanishing of \lim^1 . **(81i:18015a)**
- Erratum: "A note on the vanishing of \lim^1 ". **(81i:18015b)**
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- Kodama, Yukihiko On tom Dieck's theorem in shape theory. (Russian summary) **(81a:54018)**
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- Aguadé i Bover, Jaume How to recognize a localized sphere. **81b:55029**
- Hilton, Peter (with Leite, Paulo) On nilpotent spaces and *C*-theory. **81b:55030**
- Leite, Paulo See Hilton, Peter, **81b:55030**
- May, J. P. Fibrewise localization and completion. **81f:55005**
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- Schoerer, Hans Localisation des espaces de sections et de rétractions. (English summary) **81i:55010**
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- Aguadé i Bover, Jaume Fiberings of spheres by spheres mod *p*. **(81j:55017)**
- Dwyer, W. G. Tame homotopy theory. **(81a:55020)**
- Harper, John R. Construction of mod *p* *H*-spaces. **II. (81k:55014)**
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- Puppe, Volker Deformations of algebras and cohomology of fixed point sets. **(81e:57038)**
- Rector, D. L. Homotopy theory of rigid profinite spaces. **I. (81k:55009)**
- Roitberg, Joseph See Hilton, Peter, **(81b:20029)**

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- Babenko, I. K. Real homotopy properties of complete intersections. (Russian) **81b:55031**
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- Félix, Yves Classification homotopique des espaces rationnels de cohomologie donnée. **81m:55012**
- (with Lemaire, Jean-Michel; Sigrist, François) Sur les cônes itérés et la catégorie de Lusternik-Schirelmann rationnelle. (English summary) **81e:55015**
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- (with Halperin, Stephen) Distinct representatives, varieties and rational homotopy. **81f:55006a**
- Halperin, Stephen See Friedlander, John B., **81f:55006a** and Friedlander, John B., **81f:55006b**
- Lemaire, Jean-Michel See Félix, Yves; et al., **81e:55015**
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- Grivel, Pierre-Paul Formes différentielles et suites spectrales. (English summary) **(81b:55041)**
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- Calder, Allan (with Siegel, Jerrold) Kan extensions of homotopy functors. **81b:55032**
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- Siegel, Jerrold See Calder, Allan, **81b:55032**

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- Lada, Thomas See Kraines, David, **(81b:55024)**

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- See also **Gandini, Pier Mario**, **81c:55016**
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- Eggar, Michael H.** Hybrid reduced and symmetric product spaces. **(81b:55037)**
- Evens, Leonard** (with Friedlander, Eric M.) $K(\mathbb{Z}/p^2)$ and $K(\mathbb{Z}/p\mathbb{Z})$ for $p > 5$ and $r < 4$. **(81b:18004)**
- Friedlander, Eric M.** See **Evens, Leonard**, **(81b:18004)**

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55Q05 Homotopy groups, general; sets of homotopy classes

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- Casciaro, Biagio C.** See **Amici, Oriella M.**, **81c:55017**
- Demaria, Davide Carlo** (with Talamo, Rodolfo) Uniform homotopy. (Italian. English summary) **81d:55015**
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- Neisendorfer, Joseph** Primary homotopy theory. **81b:55035**
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- Wilkinson, Clarence** Errata: "Applications of minimal simplicial groups" [Topology 15 (1976), no. 2, 111-130; MR 53 #6551]. **81d:55016**

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- Feuerbacher, Gary A.** Irreducibly essential maps from inverse limits. **(81c:54035)**
- Hwang, Leon Nan** Path connectivity in $C^*(X, Y)$. **(81d:54010)**

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- Kodama, Yukihiko** Generalization of movability and Hurewicz' isomorphism theorem for Steenrod homology. (Russian) **81b:55008**
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55Q15 Whitehead products and generalizations

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- Marcum, Howard J.** (with Randall, Duane) The homotopy Thom class of a spherical fibration. **(81k:55026)**
- Randall, Duane** See **Marcum, Howard J.**, **(81k:55026)**

55Q20 Homotopy groups of wedges, joins, and simple spaces

55Q25 Hopf invariants

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- On the $(n+1)$ -tuple points of immersed n -spheres. **81c:55020**
- Sanderson, Brian J.** See **Koschorke, Ulrich**, **81f:55014**

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- Freedman, Michael H.** Quadruple points of 3-manifolds in S^4 . **(81b:57027)**

55Q30 Homotopy groups of triads, n -ads

55Q35 Operations in homotopy groups

55Q40 Homotopy groups of spheres

- Cohen, F. R.** (with Moore, John C.; Neisendorfer, Joseph) The double suspension and exponents of the homotopy groups of spheres. **81c:55021**
- Moore, John C.** See **Cohen, F. R.**; et al., **81c:55021**
- Neisendorfer, Joseph** See **Cohen, F. R.**; et al., **81c:55021**

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- May, J. P.** Applications and generalizations of the approximation theorem. **(81e:55013)**
- Moore, John C.** See **Cohen, F. R.**; et al., **(81g:55010)**
- Neisendorfer, Joseph** See **Cohen, F. R.**; et al., **(81g:55010)**
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- Koschorke, Ulrich** Multiple points of immersions, and the Kahn-Priddy theorem. **(81a:57030)**
- Ōshima, Hidesaki** On C -projective 8 and 10 stems. **(81k:55023)**
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- Hodgkin, Luke** (with Snaith, Victor P.) The K -theory of some more well-known spaces. **81f:55014**
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55Q52 Homotopy groups of special spaces

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Alexander, James C. (with Fitzpatrick, P. M.) The homotopy of certain spaces of nonlinear operators, and its relation to global bifurcation of the fixed points of parametrized condensing operators. **(81k:58023)**

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Giulardi, Carlo How to deduce the fundamental group of a closed n -manifold from a contracted triangulation. (Italian summary) **(81m:57014)**

55Q55 Cohomotopy groups

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55Q70 Homotopy groups of special types [See also 55N05, 55N07.]

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Effros, Edward G. Aspects of noncommutative geometry. **(81m:46100)**

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Garbaccio Bogin, Rosanna Regular homotopy of infinite graphs. (Italian. English summary) **(81f:55009)**

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55R05 Fiber spaces

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Cornu, Philippe Un homomorphisme caractéristique pour les fibrés principaux modélisés sur un espace homogène réductif. (English summary) **81k:55028**

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Audin, Michèle La classe de cobordisme de la singularité d'un morphisme de fibrés vectoriels et des points doubles d'une application. (English summary) **(81k:57037)**

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Walczak, B. A necessary and sufficient condition for the existence of a bundle in differential spaces. **(81j:58013)**

55R15 Classification

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55R20 Spectral sequences and homology of fiber spaces [See also 55Txx.]

Braschelet, Jean-Paul Homologie des fibrés à singularités (suite spectrale des applications C -stratifiées). **81h:55013**

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Ilori, Samuel A. A generalization of the Gysin homomorphism for flag bundles. **(81g:14002)**

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Aguadé i Bover, Jaume Fiberings of spheres by spheres mod p . **81j:55017**

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Ishimoto, Hiroyasu Homotopy classification of connected sums of sphere bundles over spheres. I. **81b:55038**

Noakes, J. L. Spherical fibrations. **81f:55019**

Switzer, R. M. Rank 2 bundles over P^n and the e -invariant. **81c:55022**

secondary classifications:

Berezin, F. A. Instantons and Grassmann manifolds. (Russian) **(81a:53032)**

Cox, David A. Spherical fibrations in algebraic geometry. **(81b:14013)**

Drinfel'd, V. G. (with Manin, Ju. I.) Instantons and sheaves on CP^3 . **(81k:14014)**
 (with Manin, Ju. I.) Instantons and sheaves in CP^3 . (Russian) **(81b:14007)**

Eichhorn, Jürgen Die Kompaktifizierung offener Mannigfaltigkeiten zu geschlossenen. I. **(81f:57030a)**

Die Kompaktifizierung offener Mannigfaltigkeiten zu geschlossenen. II. **(81f:57030b)**

Manin, Ju. I. See Drinfel'd, V. G., **(81b:14007)** and Drinfel'd, V. G., **(81k:14014)**

55R35 Classifying spaces of groups and H -spaces

- Anderson, Gerald A. A -homology cobordism bundles. 81j:55018
 McDuff, Dora On the classifying spaces of discrete monoids. 81d:55020
 Theodoresco, William A. The cohomology of the projective n -plane. 81a:55026

secondary classifications:

- Hubbuck, J. R. Mod p associative H -spaces of given rank. (81e:55012)
 Madsen, Ib Henning (with Milgram, R. James) ★ The classifying spaces for surgery and cobordism of manifolds. (81b:57014)
 Milgram, R. James See Madsen, Ib Henning, (81b:57014)
 Schlafly, Roger Universal connections. (81f:53022)
 Smith, Victor P. Stable decompositions of classifying spaces with applications to algebraic cobordism theories. (81a:55027)

55R40 Homology of classifying spaces, characteristic classes [See also 57Txx, 57R20.]

- Duchipin, Constantin On the multiplicative structure of the singular cohomology of real Grassmann varieties. (Romanian. French summary) 81b:55015
 Feshbach, Mark p -subgroups of compact Lie groups and torsion of infinite height in $H^*(BG)$. 81c:55023
 Haas, Ronald Kirk (with Uehara, Hiroshi) A note on Thom classes in general cohomology. 81k:55030
 Hegenbarth, Friedrich Exotic characteristic classes of spherical fibrations. 81c:55024
 Kono, Akira (with Mimura, Mamoru) Cohomology mod 3 of the classifying space of the Lie group E_6 . 81m:55015
 Mimura, Mamoru (with Sambe, Yuriko) On the cohomology mod p of the classifying spaces of the exceptional Lie groups. I. 81c:55025
 See also Kono, Akira, 81m:55015
 Piccini, Paolo On symplectic Pontrjagin classes. (Italian. English summary) 81j:55019
 Sambe, Yuriko See Mimura, Mamoru, 81c:55025
 Smith, Victor P. Stable decompositions of classifying spaces with applications to algebraic cobordism theories. 81a:55027
 Uehara, Hiroshi See Haas, Ronald Kirk, 81k:55030

secondary classifications:

- Eckmann, Beno (with Mislin, Guido) Rational representations of finite groups and their Euler class. (81d:20013)
 Hiller, Howard L. On the height of the first Stiefel-Whitney class. (81f:57046)
 On the cohomology of real Grassmannians. (81a:14026)
 Jackowski, Stefan Group homomorphisms inducing isomorphisms of cohomology. (81j:20071)
 Kobayashi, Teichi (with Maki, Haruo; Yoshida, Toshio) Extendibility with degree d of the complex vector bundles over lens spaces and projective spaces. (81c:55027)
 Langevin, Rémi Classe moyenne d'une sous-variété d'une sphère ou d'un espace projectif. (81k:14004)
 Maki, Haruo See Kobayashi, Teichi; et al., (81c:55027)
 Mislin, Guido See Eckmann, Beno, (81d:20013)
 Yoshida, Toshio See Kobayashi, Teichi; et al., (81c:55027)

55R45 Homology and homotopy of BO and BU ; Bott periodicity

- Harris, Bruno Bott periodicity via simplicial spaces. 81c:55026
 Sugawara, Tamio Wu formulas for the mod 3 reduced power operations. 81a:55028

55R50 Stable classes of vector space bundles, K -theory (For algebraic K -theory, see 18F25.)

- Allard, Jacques Sums of stably trivial vector bundles. 81f:55020
 Kobayashi, Teichi (with Maki, Haruo; Yoshida, Toshio) Extendibility with degree d of the complex vector bundles over lens spaces and projective spaces. 81c:55027
 Maki, Haruo See Kobayashi, Teichi; et al., 81c:55027
 Yoshida, Toshio See Kobayashi, Teichi; et al., 81c:55027

secondary classifications:

- Hodgkin, Luke (with Smith, Victor P.) The K -theory of some more well-known spaces. (81f:55014)
 Kassel, Christian Homologie du groupe linéaire général et K -théorie stable. (English summary) (81f:57045)
 Smith, Victor P. See Hodgkin, Luke, (81f:55014)

55R55 Fiberings with singularities

secondary classifications:

- Brand, Neal Necessary conditions for the existence of branched coverings. (81b:57001)

55R60 Microbundles and block bundles [See also 57N55, 57Q50.]

55R65 Generalizations of fiber spaces and bundles

- Coram, D. S. (with Duvall, P. F., Jr.) A Hurewicz-type theorem for approximate fibrations. 81c:55028
 Duvall, P. F., Jr. See Coram, D. S., 81c:55028
 Hirsch, L. S. (with Stoughton, J. R.) s -fibrations. 81k:55031
 Keenling, James (with Mardesic, Sibe) A shape fibration with fibers of different shape. 81c:55024

- Kruse, D. E. (with McClendon, J. F.) Homotopy epimorphisms and relative principal fibrations. 81g:55016

- Mardesic, Sibe See Keenling, James, 81c:55024

- McClendon, J. F. See Kruse, D. E., 81g:55016

- Stoughton, J. R. See Hirsch, L. S., 81k:55031

secondary classifications:

- Coram, D. S. (with Duvall, P. F., Jr.) Nondegenerate k -sphere mappings between spheres. (81m:57008)
 Duvall, P. F., Jr. See Coram, D. S., (81m:57008)
 Goad, R. E. Approximate torus fibrations of high dimensional manifolds can be approximated by torus bundle projections. (81c:57016)

55R99 None of the above, but in this section

- Calder, Allan (with Siegel, Jerrold) Homotopy and uniform homotopy. II. 81c:55029
 Katz, Elyahu Twisted free tensor products. 81g:55017
 Siegel, Jerrold See Calder, Allan, 81c:55029
 Strickland, Elisabetta On the orthogonal Brauer group. (Italian summary) 81k:55016

secondary classifications:

- le Dimet, Jean-Yves Un fibré universel pour les plongements semi-linéaires non localement plats. (English summary) (81k:57015)
 Gutik, Andrej On compact spaces which are locally Cantor bundles. (81k:54065)
 Levaev, A. E. ★ Движение и двойственность в релятивистской электродинамике. (Russian) [Motion and duality in relativistic electrodynamics] (81e:78002)

55Sxx Operations and obstructions

55S05 Primary cohomology operations

- Helaja, L. G. On some chain operations. (Russian. Georgian and English summaries) 81c:55030
 Kane, Richard Brown-Peterson operations and Steenrod modules. 81f:55021

secondary classifications:

- Johnson, David Copeland (with Yoshimura, Zen-ichi) Torsion in Brown-Peterson homology and Hurewicz homomorphisms. (81b:55010)
 Sanderson, Brian J. The geometry of Mahowald orientations. (81c:57039)
 Yoshimura, Zen-ichi See Johnson, David Copeland, (81b:55010)

55S10 Steenrod algebra

- Adams, John Frank See Lin, Wen Hsiung; et al., 81c:55025
 Davis, Donald M. See Lin, Wen Hsiung; et al., 81c:55025
 Dwyer, W. G. Higher divided squares in second-quadrant spectral sequences. 81f:55022
 Gallant, Andrew M. Excess and conjugation in the Steenrod algebra. 81a:55029
 Lin, Wen Hsiung (with Davis, Donald M.; Mahowald, Mark E.; Adams, John Frank) Calculation of Lin's Ext groups. 81c:55025
 Mahowald, Mark E. See Lin, Wen Hsiung; et al., 81c:55025
 Ochiai, Shoji Note on the symmetric functions. 81a:55030
 On the action of the Steenrod reduced powers in a polynomial Hopf algebra over the Steenrod algebra. 81c:55026
 Singer, William M. On the localization of modules over the Steenrod algebra. 81b:55039
 Iterated loop functors and the homology of the Steenrod algebra. II. A chain complex for Ω_n^*M . 81b:55040

secondary classifications:

- Bahr, A. P. (with Mahowald, Mark E.) A direct summand in $H^*(MO(8); \mathbb{Z}_2)$. (81b:57029)
 Mahowald, Mark E. See Bahr, A. P., (81b:57029)
 Sugawara, Tamio Wu formulas for the mod 3 reduced power operations. (81a:55028)

55S12 Dyer-Lashof operations

55S15 Symmetric products, cyclic products

- Welcher, Peter J. Symmetric products and the stable Hurewicz homomorphism. 81j:55020

55S20 Secondary and higher cohomology operations

- Dwyer, W. G. Homotopy operations for simplicial commutative algebras. 81c:55027
 Holtzman, D. N. A product formula for higher order cohomology operations. 81m:55016
 MacDonald, John L. A categorical approach to primary and secondary operations in topology. 81d:55021

55S25 K -theory operations and generalized cohomology operations

- Krueger, Warren M. Relation with the Hopf invariant revisited. 81i:55019
 Morry, Mosir S. A note on Adams operations. 81b:55017
 Sokurov, A. V. Topological applications of the tool of formal diffeomorphisms of the line. (Russian) 81j:55021

55S30 Massey products

- Beitritsvili, T. V. On the Massey product. (Russian. English summary) **81f:55023**
 Kochman, Stanley O. Uniqueness of Massey products on the stable homotopy of spheres. **81k:55032**

secondary classifications:

- Porter, Richard Milnor's μ -invariants and Massey products. **(81a:57021)**

55S35 Obstruction theory

- Brunner, Götz Hindernistheorie mit Koeffizienten in Garben von lokalen allgemeinen Homotopiegruppen. (English summary) **81j:55022**

secondary classifications:

- Davis, Donald M. (with Mahowald, Mark E.) The Euler class for connective ko -theory and an application to immersions of quaternionic projective space. **(81b:57013)**
 Lanhof, Richard Obstructions to equivariance. **(81d:57030)**
 Mahowald, Mark E. See Davis, Donald M. **(81b:57013)**
 McCleary, John Mod p decompositions of H -spaces; another approach. **(81c:55014)**

55S36 Extension and compression of mappings

55S37 Classification of mappings

55S40 Sectioning fiber spaces and bundles

secondary classifications:

- Kruse, D. E. (with McClendon, J. F.) Homotopy epimorphisms and relative principal fibrations. **(81g:55016)**
 McClendon, J. F. See Kruse, D. E. **(81g:55016)**
 Piacenza, Robert J. Cohomology of fiber spaces is representable. **(81b:55033)**

55S45 Postnikov systems, k -invariants

- Meier, Willi Acyclic maps and knot complements. **81l:55020**

55S99 None of the above, but in this section

secondary classifications:

- Breen, Lawrence Extensions du groupe additif. **(81f:14011)**
 Shen, Xia Yao On new homotopy invariants. I. A short exact sequence. (Chinese. English summary) **(81e:55022a)**
 On new homotopy invariants. II. Two short exact sequences. (Chinese. English summary) **(81e:55022b)**
 Thomason, R. W. Beware the phony multiplication on Quillen's $\mathcal{Q}^{-1}\mathcal{A}$. **(81k:18010)**

55Txx Spectral sequences [See also 18G40, 55R20.]

55T05 General

55T10 Serre spectral sequences

- Grivel, Pierre-Paul Formes différentielles et suites spectrales. (English summary) **81b:55041**
 Prieto, Carlos ★The relative spectral sequence of Leray-Serre for fibration pairs. **81e:55028**
 Suwa, Tatsuo The Lyndon-Hochschild-Serre spectral sequences for sheaves with operators. **81g:55018**

55T15 Adams spectral sequences

- Lin, Wen Hsiung The Adams-Mahowald conjecture on real projective spaces. **81d:55022**
 Tsukada, Eisuo Invariant sequences in Brown-Peterson homology and some applications. **81f:55024**

secondary classifications:

- Carlsson, Gunnar On the stable splitting of $bo \wedge bo$ and torsion operations in connective K -theory. **(81j:55003)**
 Golubjatnikov, V. P. An algebraic spectral sequence. (Russian) **(81g:57021)**
 Kochman, Stanley O. The symplectic cobordism ring. I. **(81c:55010)**
 Veršinina, V. V. S. P. Novikov's algebraic spectral sequence for the spectrum $M\mathbb{S}p$. (Russian) **(81b:57020)**

55T20 Eilenberg-Moore spectral sequences [See also 57T35.]

- Dieng, Youssouf Le foncteur $\text{Cotor}(-, -)$ et l'homologie des espaces fibrés. (English summary) **81f:55025**
 Mimura, Mamoru (with Sambe, Yuriko) On the cohomology mod p of the classifying spaces of the exceptional Lie groups. II, III. **81j:55023**
 Sambe, Yuriko See Mimura, Mamoru, **81j:55023**

secondary classifications:

- Dieng, Youssouf Sur un théorème de comparaison en algèbre homologique. Applications aux fibrations. **(81m:55017)**

- Dwyer, W. G. Higher divided squares in second-quadrant spectral sequences. **(81f:55022)**

- Ravenel, Douglas C. (with Wilson, W. Stephen) The Morava K -theories of Eilenberg-Mac Lane spaces and the Conner-Floyd conjecture. **(81i:55005)**
 Wilson, W. Stephen See Ravenel, Douglas C., **(81i:55005)**

55T25 Generalized cohomology

- Gray, Brayton Products in the Atiyah-Hirzebruch spectral sequence and the calculation of MSO_* . **81f:55026**

55T99 None of the above, but in this section

secondary classifications:

- Brasselet, Jean-Paul Homologie des fibrés à singularités (suite spectrale des applications C -stratifiées). **(81b:55013)**
 Breen, Lawrence Extensions du groupe additif. **(81f:14011)**
 McCrory, Clint Zeeman's filtration of homology. **(81b:55002)**
 Wama, Selma A spectral sequence for group presentations with applications to links. **(81j:57003)**

55Uxx Applied homological algebra and category theory [See also 18Gxx.]

55U05 Abstract complexes

- Dieng, Youssouf Sur un théorème de comparaison en algèbre homologique. Application aux fibrations. **81m:55017**

55U10 Semisimplicial complexes

secondary classifications:

- Dror, Emmanuel (with Dwyer, W. G.; Kan, D. M.) Automorphisms of fibrations. **(81h:55012)**
 Dwyer, W. G. (with Kan, D. M.) Function complexes in homotopical algebra. **(81m:55018)**
 See also Dror, Emmanuel; et al., **(81h:55012)**
 Jekel, Solomon M. Loops on the classifying space for foliations. **(81d:57021)**
 Kan, D. M. See Dror, Emmanuel; et al., **(81h:55012)** and Dwyer, W. G., **(81m:55018)**
 Katz, Elyahu Twisted free tensor products. **(81g:55017)**
 Seymour, R. M. Kan fibrations in the category of simplicial spaces. **(81f:55017)**

55U15 Chain complexes

secondary classifications:

- Baues, H. J. Geometry of loop spaces and the cobar construction. **(81m:55010)**

55U20 Universal coefficient theorems, Bockstein operator

55U25 Homology of a product, Künneth formula

secondary classifications:

- Bödigheimer, C.-F. Splitting the Künneth sequence in K -theory. II. **(81k:55007)**

55U30 Duality

- Bieri, Robert (with Eckmann, Beno) Two-dimensional Poincaré duality groups and pairs. **81f:55027**
 Eckmann, Beno See Bieri, Robert, **81f:55027**

55U35 Abstract homotopy theory

- Anderson, Donald W. Axiomatic homotopy theory. **81c:55031**
 Dwyer, W. G. (with Kan, D. M.) Simplicial localizations of categories. **81b:55018**
 (with Kan, D. M.) Calculating simplicial localizations. **81b:55019**
 (with Kan, D. M.) Function complexes in homotopical algebra. **81m:55018**
 Kan, D. M. See Dwyer, W. G., **81b:55018**; Dwyer, W. G., **81b:55019** and Dwyer, W. G., **81m:55018**
 Simms, Nathan F., Jr. On stable homotopy in Frobenius categories. **81j:55024**

secondary classifications:

- Calder, Allan (with Siegel, Jerrold) Homotopy and uniform homotopy. II. **(81c:55020)**
 Siegel, Jerrold See Calder, Allan, **(81c:55020)**
 Wu, Wen Jun On calculability of I^* -measure with respect to complex-union and other related constructions. **(81k:55019)**

55U40 Topological categories

secondary classifications:

- Herrlich, Horst (with Nakagawa, R.; Strecker, George E.; Titcomb, T.) Equivalent topologically-algebraic and semitopological functors. **(81f:18008)**
 Nakagawa, R. See Herrlich, Horst; et al., **(81f:18008)**
 Strecker, George E. See Herrlich, Horst; et al., **(81f:18008)**
 Titcomb, T. See Herrlich, Horst; et al., **(81f:18008)**

55U99 None of the above, but in this section

Brumfiel, Gregory W. ★Partially ordered rings and semi-algebraic geometry. 81e:55029
 Roos, Jan-Erik Relations between Poincaré-Betti series of loop spaces and of local rings. 81g:55019

secondary classifications:

Baumslag, Gilbert (with Dyer, E.; Heller, A.) The topology of discrete groups. (81i:55012)

Dyer, E. See Baumslag, Gilbert; et al., (81i:55012)
 Heller, A. See Baumslag, Gilbert; et al., (81i:55012)

57-XX MANIFOLDS AND CELL COMPLEXES [For complex manifolds, see 32C10.]

57-01 Elementary exposition, textbooks

secondary classifications:

Armstrong, Mark Anthony ★Basic topology. (81c:55001)
 Bliznjakov, N. M. See Borisovič, Ju. G.; et al., (81j:55001)
 Borisovič, Ju. G. (with Bliznjakov, N. M.; Izrailevič, Ja. A.; Fomenko, T. N.) ★Введение в топологию. (Russian) [Introduction to topology] (81j:55001)
 (Brücker, Th.) See Jänich, Klaus, (81m:54002)
 Dubrovina, B. A. (with Novikov, S. P.; Fomenko, A. T.) ★Современная геометрия. (Russian) [Modern geometry] (81f:53001)
 Fomenko, A. T. See Dubrovina, B. A.; et al., (81f:53001)
 Fomenko, T. N. See Borisovič, Ju. G.; et al., (81j:55001)
 Henle, Michael ★A combinatorial introduction to topology. (81g:55001)
 Izrailevič, Ja. A. See Borisovič, Ju. G.; et al., (81j:55001)
 Jänich, Klaus ★Topologie. (German) [Topology] (81m:54002)
 Naber, Gregory L. ★Topological methods in Euclidean spaces. (81i:55001)
 Novikov, S. P. See Dubrovina, B. A.; et al., (81f:53001)
 Tverberg, Helge A proof of the Jordan curve theorem. (81c:30045)

57-02 Advanced exposition (research surveys, monographs, etc.)

Hollingsworth, John G. A short list of problems. 81f:57001
 Mandelbaum, Richard Four-dimensional topology: an introduction. 81j:57001

secondary classifications:

(Wall, Charles T. C.) See Problems: Homological group theory, (81f:00002)
 Problems:
 Homological group theory List of problems. (81f:00002)

57-03 Historical (must also be assigned at least one classification number from Section 01)

secondary classifications:

Kirchgraber, Urs See Szebehely, Victor; et al., (81a:01042)
 Saari, Donald G. See Szebehely, Victor; et al., (81a:01042)
 (Stiefel, Eduard L.) See Szebehely, Victor; et al., (81a:01042)
 Szebehely, Victor (with Saari, Donald G.; Waldvogel, J.; Kirchgraber, Urs) Eduard L. Stiefel (1909-1978). (81a:01042)
 Waldvogel, J. See Szebehely, Victor; et al., (81a:01042)
 Obituary:
 Stiefel, Eduard L. See Szebehely, Victor; et al., (81a:01042)

57-04 Explicit machine computation and programs (not the theory of computation or programming)

Bapat, R. B. A generalization of a theorem of Ky Fan on simplicial maps. 81j:57002

57-06 Proceedings, conferences, etc.

(Koschorke, Ulrich) See Symposium: Topology, 81i:57001
 (Neumann, Walter D.) See Symposium: Topology, 81i:57001
 Equivariant homotopy ★Group actions on manifolds and equivariant homotopy. (Japanese) 81m:57001
 Group actions on manifolds and equivariant homotopy ★Group actions on manifolds and equivariant homotopy. (Japanese) 81m:57001
 Manifolds ★Group actions on manifolds and equivariant homotopy. (Japanese) 81m:57001
 Siegen ★Topology Symposium, Siegen 1979. 81i:57001
 Symposium:
 Group Actions on Manifolds and Equivariant Homotopy ★Group actions on manifolds and equivariant homotopy. (Japanese) 81m:57001
 Topology ★Topology Symposium, Siegen 1979. 81i:57001

secondary classifications:

(Baayen, P. C.) See Topological structures, (81a:54001a) and Topological structures. (81a:54001b)
 (Černavskii, A. V.) See Geometric methods in problems of analysis and algebra. (81d:53001)
 (Császár, Akos) See Topology, (81i:54001)
 (Dupont, Johan Louis) See Algebraic topology. (81b:55001)
 (Madsen, Ib Henning) See Algebraic topology. (81b:55001)

(van Mill, Jan) See Topological structures, (81a:54001a) and Topological structures. (81a:54001b)

Aarhus ★Algebraic topology, Aarhus 1978. (81b:55001)

Algebra ★Геометрические методы в задачах анализа и алгебры. (Russian) [Geometric methods in problems of analysis and algebra] (81d:53001)

Algebraic topology ★Algebraic topology, Aarhus 1978. (81b:55001)

Amsterdam ★Topological structures. II. Part 1. (81a:54001a)
 ★Topological structures. II. Part 2. (81a:54001b)

Analysis ★Геометрические методы в задачах анализа и алгебры. (Russian) [Geometric methods in problems of analysis and algebra] (81d:53001)

Budapest ★Topology. Vol. I, II. (81i:54001)

Colloquia Mathematica Societatis Janos Bolyai ★Topology. Vol. I, II. (81i:54001)

Colloquium:
 Topology ★Topology. Vol. I, II. (81i:54001)

Geometric methods in problems of analysis and algebra ★Геометрические методы в задачах анализа и алгебры. (Russian) [Geometric methods in problems of analysis and algebra] (81d:53001)

Geometry ★Topological structures. II. Part 1. (81a:54001a)
 ★Topological structures. II. Part 2. (81a:54001b)

Symposium:

Algebraic Topology ★Algebraic topology, Aarhus 1978. (81b:55001)
 Topology and Geometry ★Topological structures. II. Part 1. (81a:54001a)
 ★Topological structures. II. Part 2. (81a:54001b)

Topological structures ★Topological structures. II. Part 1. (81a:54001a)

★Topological structures. II. Part 2. (81a:54001b)

Topology ★Algebraic topology, Aarhus 1978. (81b:55001)
 ★Topology. Vol. I, II. (81i:54001)

57Mxx Low-dimensional topology (old 55Axx)

57M05 Fundamental group, presentations, free differential calculus

Johnson, F. E. A. Correction to: "On the first end invariant of an exact sequence" [Mathematika 22 (1975), no. 1, 60-70; MR 55 #515]. 81g:57001
 Kerckhoff, Steven P. The Nielsen realization problem. 81i:57002
 Metzler, Wolfgang Äquivalenzklassen von Gruppenbeschreibungen, Identitäten und einfacher Homotopietyp in niedrigen Dimensionen. 81k:57001
 Rourke, Colin Presentations and the trivial group. 81a:57001
 Scott, G. Peter (with Wall, Terry) Topological methods in group theory. 81m:57002
 Wall, Terry See Scott, G. Peter, 81m:57002
 Wanna, Selma A spectral sequence for group presentations with applications to links. 81i:57003
 Zuzin, Ju. V. An example of an algebraic curve in C^2 , such that its complement has fundamental group with elements of finite order. (Russian) 81d:57001

secondary classifications:

Amici, Oriella M. (with Casciaro, Biagio C.) On the first regular homotopy group of graphs. (Italian. English summary) (81c:55017)
 Casciaro, Biagio C. See Amici, Oriella M., (81c:55017)
 Chang, Hai Ch'ao On two classical facts by Zariski and van Kampen. (81f:14016)
 Cohen, Daniel E. ★Combinatorial group theory. A topological approach. (81b:20001)
 Dyer, Michael N. An application of homological algebra to the homotopy classification of two-dimensional CW-complexes. (81g:55009)
 van Est, W. T. Fundamental groups and higher homotopy groups. (Dutch) (81g:55013)
 Gagliardi, Carlo How to deduce the fundamental group of a closed n -manifold from a contracted triangulation. (Italian summary) (81m:57014)
 Howie, James Aspherical and acyclic 2-complexes. (81f:57004)
 Huebschmann, Johannes Cohomology theory of aspherical groups and of small cancellation groups. (81f:20066)
 Jajodia, Sushil On the two-realizability of chain complexes. (81f:57003)
 Oka, Mutsuo (with Sakamoto, Koichi) Product theorem of the fundamental group of a reducible curve. (81b:14019)
 Randell, Richard On the fundamental group of the complement of a singular plane curve. (81c:14017)
 Rosenberger, Gerhard Applications of Nielsen's reduction method to the solution of combinatorial problems in group theory: a survey. (81i:20039)
 Sakamoto, Koichi See Oka, Mutsuo, (81b:14019)
 Torriani, Hugo H. On the structure of the fundamental group of the Klein bottle. (See 80c:00010b)
 Treikoff, Marvin D. A topological approach to the theory of groups acting on trees. (81b:20030)
 Yuan, Hsi Shih The fundamental group of the residual space of a curve in an algebraic surface. (81f:14018)

57M10 Covering spaces

Cowslip, R. C. (with Swarup, G. A.) A remark on infinite cyclic covers. 81e:57001
 Swarup, G. A. See Cowslip, R. C., 81e:57001

secondary classifications:

Cohen, Daniel E. ★Combinatorial group theory. A topological approach. (81b:20001)
 Haggman, B. C. (with Horndeski, Gregory Walter; Mess, G.) Properties of a covering space defined by Hawking. (81i:83036)
 Hansen, Vagn Lundsgaard Coverings defined by Weierstrass polynomials. (81c:57002)
 Hartley, Richard (with Murasugi, Kunio) Homology invariants. (81i:57006)
 Horndeski, Gregory Walter See Haggman, B. C.; et al., (81i:83036)
 Mess, G. See Haggman, B. C.; et al., (81i:83036)
 Murasugi, Kunio See Hartley, Richard, (81i:57006)
 Sakuma, Makoto The homology groups of abelian coverings of links. (81g:57005)

Tretkoff, Marvin D. A topological approach to the theory of groups acting on trees. (81b:20630)

57M12 Special coverings, e.g. branched

Brand, Neal Necessary conditions for the existence of branched coverings. 81b:57001

Classifying spaces for branched coverings. 81c:57001

Edmonds, Allan L. Deformation of maps to branched coverings in dimension three. 81a:57002

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57N15 Topology of E^n , n -manifolds ($4 < n < \infty$)

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57N37 Isotopy and pseudo-isotopy

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57N60 Cellularity

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57N65 Algebraic topology of manifolds

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57N70 Cobordism and concordance

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57N75 General position and transversality

secondary classifications:

- Handel, David (with Segal, Jack) On k -regular embeddings of spaces in Euclidean space. (**81h:57005**)
 Segal, Jack See Handel, David, (**81h:57005**)

57N80 Stratifications

secondary classifications:

- Bedford, J. O. (with Gibson, Christopher G.) Regularity conditions over the second simple elliptic family. (**81i:58013**)
 Gibson, Christopher G. See Bedford, J. O., (**81i:58013**)
 McCrory, Clint Zeeman's filtration of homology. (**81b:55002**)

57N99 None of the above, but in this section

- Goad, R. E. Approximate torus fibrations of high dimensional manifolds can be approximated by torus bundle projections. **81c:57016**
 Li, Yu Li Subsets with no cluster points. **81m:57010**
 Rubinstein, J. H. Dehn's lemma and handle decompositions of some 4-manifolds. **81m:57011**
 Sullivan, Dennis Hyperbolic geometry and homeomorphisms. **81m:57012**

secondary classifications:

- Boxer, Laurence The space of ANRs of a closed surface. (81f:54009)
 Gacul, I. S. A series of compact three-dimensional manifolds of constant negative curvature. (Russian) (81c:51026)
 Neumann, Walter D. Normal subgroups with infinite cyclic quotient. (81k:20054)

57Pxx Generalized manifolds [See also 18F15.]

- 57P05 Local properties
 57P10 Poincaré duality spaces

- Gottlieb, Daniel Henry Poincaré duality and fibrations. 81a:57017
 Sasso, Selya (with Takahashi, Hideo) Inner product spaces associated with Poincaré complexes. 81i:57013
 Takahashi, Hideo See Sasso, Selya, 81i:57013
 Williams, Bruce Hopf invariants, localization and embeddings of Poincaré complexes. 81e:57023

secondary classifications:

- Cooke, George Thickenings of CW complexes of the form $S^m \cup_a e^n$. (81c:55016)
 Pedersen, Erik Kjaer (with Ranicki, Andrew) Projective surgery theory. (81i:57032)
 Ranicki, Andrew See Pedersen, Erik Kjaer, (81i:57032)
 Turner, V. G. Fundamental groups of manifolds and Poincaré complexes. (Russian) (81g:55015)

57P99 None of the above, but in this section

- Burge, Jean An algebraic proof of a theorem of J. Milnor. 81k:57013
 Bryant, J. L. (with Lacher, R. C.) Resolving acyclic images of three-manifolds. 81i:57014
 Lacher, R. C. See Bryant, J. L., 81i:57014

secondary classifications:

- (Edwards, Robert D.) See Latour, François, (81b:57011)
 Latour, François Double suspension d'une sphère d'homologie [d'après R. Edwards]. (81b:57011)
 McCrory, Clint Zeeman's filtration of homology. (81b:55002)
 Stillwell, John Letter to the editors. (81a:01027)

57Qxx PL-topology

57Q05 The general topology of complexes

- Günter, Ewald (with Kleinschmidt, Peter; Pachner, Udo; Schulz, Christoph) Neuere Entwicklungen in der kombinatorischen Konvexgeometrie. 81j:57009
 Kleinschmidt, Peter See Günter, Ewald; et al., 81j:57009
 Pachner, Udo See Günter, Ewald; et al., 81j:57009
 Schulz, Christoph See Günter, Ewald; et al., 81j:57009
 Szankiewicz, Lucjan On decomposition of combinatorial homogeneous spheres. (Polish. English and Russian summaries) 81m:57013

secondary classifications:

- Altshuler, A. (with Bokowski, Jürgen; Steinberg, L.) The classification of simplicial 3-spheres with nine vertices into polytopes and nonpolytopes. (81m:52016)
 Bantegale, Robert Complexes polyédraux équilibrés sur les côtés. (81i:52008)
 Barnette, David Nonfacets for shellable spheres. (81m:52017)
 Bokowski, Jürgen See Altshuler, A.; et al., (81m:52016)
 Ewald, Günter Über die algorithmische Lösung des Steinitzproblems einer inneren Kennzeichnung polytopaler Sphären. (81j:52005)
 Kleinschmidt, Peter A Steinitz-type theorem for the projective plane. (81m:52020)
 Kühnoff, Magelone On a combinatorial problem concerning subpolytopes of stack polytopes. (81c:52006)
 Lovász, László Matroids and Sperner's lemma. (81g:05047)
 Pachner, Udo Baryzentrische Unterraumschnitte des Simplex. (81j:52010)
 Stanley, Richard P. Balanced Cohen-Macaulay complexes. (81c:05012)
 Steinberg, L. See Altshuler, A.; et al., (81m:52016)
 Stone, David A. The calculus of variations applied to combinatorics. (81c:53046)

57Q10 Simple homotopy type, Whitehead torsion, Reidemeister-Franz torsion, etc.

- Chapman, T. A. Homotopy conditions which detect simple homotopy equivalences. 81f:57011
 Dyer, Michael N. Simple homotopy types for (G, m) -complexes. 81k:57014
 Ferry, Steve Homotopy, simple homotopy and compacta. 81j:57010
 Munkholm, Hans J. Whitehead torsion for PL fiber homotopy equivalences. 81e:57024
 Vogel, Pierre Torsion de Whitehead généralisée. (English summary) 81e:57025
 Wall, Charles T. C. Relatively 1-dimensional complexes. 81i:57015

secondary classifications:

- Chillingworth, David Correction: "Collapsing three-dimensional convex polyhedra" [Proc. Cambridge Philos. Soc. 63 (1967), 353-357; MR 35 #995]. (81g:52003)
 Ferry, Steve Shape equivalence does not imply CE equivalence. (81d:55013)
 Jajodia, Sushil (with Magura, Bruce A.) Surjective stability of units and simple homotopy type. (81j:10018)

Magura, Bruce A. See Jajodia, Sushil, (81j:10018)

Waldhausen, Friedhelm Algebraic K-theory of topological spaces. I. (81i:18014a)

Algebraic K-theory of topological spaces. II. (81i:18014b)

Wall, Charles T. C. Periodic projective resolutions. (81k:18013)

57Q12 Algebraic topology of manifolds

57Q15 Triangulating manifolds

- Acar, Robert C. See Todd, Michael J., 81f:57013
 Caricchioli, Alberto Pseudodissections and contracted triangulations of spaces with isolated singularities. (Italian. English summary) 81c:57017
 Galewski, David E. (with Stern, Ronald J.) Classification of simplicial triangulations of topological manifolds. 81f:57012
 Kawachi, Akio Vanishing of the Rochlin invariants of some Z_2 -homology 3-spheres. 81b:57015
 Stern, Ronald J. See Galewski, David E., 81f:57012
 Todd, Michael J. Hamiltonian triangulations of R^n . 81a:57018
 (with Acar, Robert C.) A note on optimally dissecting simplices. 81f:57013

secondary classifications:

- Allgower, Eugene L. (with Georg, Kurt) Generation of triangulations by reflections. (81a:52006)
 Bapat, R. B. A generalization of a theorem of Ky Fan on simplicial maps. (81j:57002)
 Georg, Kurt See Allgower, Eugene L., (81a:52006)
 Trace, Bruce A class of 4-manifolds which have 2-spines. (81d:57017)

57Q20 Cobordism

secondary classifications:

- Hausmann, Jean-Claude h -cobordisms and twisted doubles. (81m:57025)
 Waldhausen, Friedhelm Algebraic K-theory of topological spaces. I. (81i:18014a)
 Algebraic K-theory of topological spaces. II. (81i:18014b)

57Q25 Comparison of PL-structures: classification, Hauptvermutung

- Anderson, Douglas R. (with Hsiang, Wu Chung) Extending combinatorial piecewise linear structures on stratified spaces. II. 81b:57009
 (Cappell, Sylvain E.) See Lannes, Jean, 81i:57016
 Hsiang, Wu Chung See Anderson, Douglas R., 81b:57009
 Lannes, Jean Un faux espace projectif réel de dimension 4 [d'après Sylvain E. Cappell et Julius L. Shaneson]. 81i:57016
 (Shaneson, Julius L.) See Lannes, Jean, 81i:57016

secondary classifications:

- Galewski, David E. (with Stern, Ronald J.) Classification of simplicial triangulations of topological manifolds. (81f:57012)
 Stern, Ronald J. See Galewski, David E., (81f:57012)
 Sullivan, Dennis Hyperbolic geometry and homeomorphisms. (81m:57012)
 Tukia, Pekka Lipschitz approximation of homeomorphisms. (81d:57013)

57Q30 Engulfing

secondary classifications:

- Maxwell, James Embedding noncompact manifolds. (81a:57019)

57Q35 Imbeddings and immersions

- Cappell, Sylvain E. Submanifolds of small codimension. 81f:57014
 le Dimet, Jean-Yves Un fibré universel pour les plongements semi-linéaires non localement plats. (English summary) 81k:57015
 Habegger, Nathan Un théorème de plongement dans l'espace euclidien. (English summary) 81f:57015
 Maxwell, James Embedding noncompact manifolds. 81a:57019

secondary classifications:

- Cooke, George Thickenings of CW complexes of the form $S^m \cup_a e^n$. (81c:55016)
 Illman, Sören Approximation of G -maps by maps in equivariant general positions and imbeddings of G -complexes. (81k:57019)
 Kojima, Masakazu (with Saigal, Romesh) A study of PC^1 homeomorphisms on subdivided polyhedrons. (81e:65022)
 Saigal, Romesh See Kojima, Masakazu, (81e:65022)

57Q37 Isotopy

- Ikeda, Hiroshi (with Yamashita, Masakatsu) Mapping cylinders and manifolds. 81d:57015
 Yamashita, Masakatsu See Ikeda, Hiroshi, 81d:57015

57Q40 Regular neighborhoods

secondary classifications:

- Ikeda, Hiroshi (with Yamashita, Masakatsu) Mapping cylinders and manifolds. (81d:57015)
 Yamashita, Masakatsu See Ikeda, Hiroshi, (81d:57015)

57Q45 Knots and links (in high dimensions) (For the low-dimensional case, see 57M25.)

Bayer, Eva S -équivalence et congruence de matrices de Seifert: une conjecture de Trotter. 81b:57016

Cappell, Sylvain E. (with Shaneson, Julius L.) Link cobordism. 81j:57011

Farber, M. S. Isotopy types of knots of codimension two. 81k:57016

Classification of certain multidimensional knots of codimension two. (Russian) 81k:57017

Goldsmith, Deborah L. (with Kauffman, Louis H.) Twist spinning revisited. 81f:57016

González Acuña, F. (with Montesinos Amilibia, José María) Nonamphicheiral codimension 2 knots. 81b:57017

Gutiérrez, M. A. Homology of knot groups. III. Knots in S^4 . 81b:57018

Hillman, Jonathan A. Orientability, asphericity and two-knots. 81f:57017

Hirschhorn, Philip S. (with Ratcliffe, John G.) A simple proof of the algebraic unknotting of spheres in codimension two. 81j:57012

Link complements and coherent group rings. 81a:57020

Hosokawa, Fujitsugu (with Maeda, Toru; Suzuki, Shin'ichi) Numerical invariants of surfaces in 4-space. 81b:57019

(with Kawauchi, Akio) Proposals for unknotted surfaces in four-spaces. 81c:57018

Kauffman, Louis H. See Goldsmith, Deborah L., 81f:57016

Kawauchi, Akio See Hosokawa, Fujitsugu, 81c:57018

Kearson, C. Attempting to classify knot modules and their Hermitian pairings. 81b:57020

Levine, Jerome P. \star Algebraic structure of knot modules. 81f:57017

Maeda, Toru See Hosokawa, Fujitsugu; et al., 81b:57019

Muramoto, Yoshitake Higher dimensional ribbon and slice knots. 81b:57021

Michel, Françoise Inversibilité des noeuds et idéaux ambiges. (English summary) 81c:57026

Montesinos Amilibia, José María See González Acuña, F., 81b:57017

Porter, Richard Milnor's $\bar{\mu}$ -invariants and Massey products. 81a:57021

Quinn, Frank Open book decompositions, and the bordism of automorphisms. 81c:57027

Ratcliffe, John G. See Hirschhorn, Philip S., 81j:57012

Shaneson, Julius L. See Cappell, Sylvain E., 81j:57011

Stolz, Neal W. Algebraic computations of the integral concordance and double null concordance group of knots. 81k:57018

Suzuki, Shin'ichi See Hosokawa, Fujitsugu; et al., 81b:57019

Trotter, H. F. Knot module and Seifert matrices. 81c:57019

Wintgen, Peter Über die totale Absolutkrümmung verknöteter Sphären. 81j:57013

Yanagawa, Takaaki On cross sections of higher dimensional ribbon knots. 81g:57012

secondary classifications:

Hillman, Jonathan A. Trivializing ribbon links by Kirby moves. (81d:57005)

Liang, Chao Chu Z_2 -knot cobordism in codimension two, and involutions on homotopy spheres. (81g:57018)

Meier, Willi Acyclic maps and knot complements. (81i:55020)

Oka, Mutsuo On the topology of the Newton boundary. II. Generic weighted homogeneous singularity. (81i:32007)

57Q50 Microbundles and block bundles [See also 55R60, 57N55.]

Grasselli, Luigi Geometric simplicial cocycles. (Italian. English summary) 81d:57016

57Q55 Approximations

secondary classifications:

Klikka, Mairé Piecewise linear approximation of quasiconformal and Lipschitz homeomorphisms. (81g:30030)

Komorowski, Jacek Nets on a Riemannian manifold and finite-dimensional approximations of the Laplacian. (81a:58002)

57Q60 Cobordism and concordance

secondary classifications:

Loday, Jean-Louis Homotopie des espaces de concordances [d'après F. Waldhausen]. (81h:57006)

Madsen, Ib Henning (with Milgram, R. James) \star The classifying spaces for surgery and cobordism of manifolds. (81b:57014)

Milgram, R. James See Madsen, Ib Henning, (81b:57014)

(Waldhausen, Friedhelm) See Loday, Jean-Louis, (81h:57006)

57Q65 General position and transversality

Illman, Sören Approximation of G -maps by maps in equivariant general positions and imbeddings of G -complexes. 81k:57019

secondary classifications:

Nef, Walter Eulers Charakteristik und die Beschränktheit konvexer Polyeder. (81d:52003)

57Q99 None of the above, but in this section

Gagliardi, Carlo How to deduce the fundamental group of a closed n -manifold from a contracted triangulation. (Italian summary) 81m:57014

MacPherson, Robert The combinatorial formula of Gabrielov, Gelfand and Losik for the first Pontrjagin class. 81a:57022

Trace, Bruce A class of 4-manifolds which have 2-spines. 81d:57017

secondary classifications:

Brumfiel, Gregory W. Realizing homology classes by PL manifolds. (81k:57030)

Demaria, Davide Carlo Some links between homotopy of polyhedra and regular homotopy of finite graphs. (81k:55024)

Fabrizius-Bjerre, Fr. A proof of a relation between the numbers of singularities of a closed polygon. (81d:52002)

Favro, Paola Regular homotopy by means of quasilinear functions. (Italian. English summary) (81f:55008)

Handel, David Algebraic-topological problems in approximation theory. (81e:55005)

Hilden, Hugh M. (with Montesinos Amilibia, José María) Lifting surgeries to branched covering spaces. (81d:57002)

Montesinos Amilibia, José María See Hilden, Hugh M., (81d:57002)

Pierce, J. F. (with Whitman, A. P.) Topological properties of the manifolds of configurations for several simple deformable bodies. (81g:73058)

Sadyrhanov, R. S. The criterion of coverability in domains of normed spaces. (Russian) (81k:55027)

Teleman, Nicolae Combinatorial Hodge theory and signature theorem. (81c:58005)

Whitman, A. P. See Pierce, J. F., (81g:73058)

(Wilder, Raymond L.) See Brumfiel, Gregory W., (81k:57038)

57Rxx Differential topology (For foundational questions of differentiable manifolds, see 58Axx; for infinite-dimensional manifolds, see 58Bxx.)

Conner, Pierre E. \star Differentiable periodic maps. 81f:57018

(Fuks, D. B.) See Hirsch, Morris, 81b:57010

Guaraldo, Francesco Differentiable manifolds and immersion problems. (Italian) 81c:57020

Hirsch, Morris \star Дифференциальная топология. (Russian) [Differential topology] 81b:57010

secondary classifications:

Dodson, C. T. J. \star Categories, bundles and spacetime topology. (81i:83001)

57R05 Triangulating

Verona, Andrei Triangulation of stratified fibre bundles. 81f:57019

secondary classifications:

Ferrarotti, M. Strong analytic triangulation for manifolds. (Italian. English summary) (81c:32012)

Galewski, David E. (with Stern, Ronald J.) Orientation-reversing involutions on homology 3-spheres. (81c:57009)

Stern, Ronald J. See Galewski, David E., (81c:57009)

57R10 Smoothing

Brumfiel, Gregory W. Remarks on smoothing theory. 81g:57013

Lashof, Richard Stable G -smoothing. 81c:57021

57R12 Smooth approximations

57R15 Specialized structures on manifolds (spin manifolds, frame manifolds, etc.)

Fried, David (with Goldman, W.; Hirsch, Morris) Affine manifolds and solvable groups. 81i:57018

Goldman, W. See Fried, David; et al., 81i:57018

Hausmann, Jean-Claude Algebraic K -theory and flat manifolds. 81f:57020

Hirsch, Morris See Fried, David; et al., 81i:57018

Johnson, Dennis Spin structures and quadratic forms on surfaces. 81m:57015

Morsy, Monir S. The geometrical relationship between the quadruple $(P_{n+1}(C), Q(P_{n+1}(R)), V_{n+2,2}(R))$. 81b:57022

secondary classifications:

Akao, Kazuo Complex structures on $S^{2n+1} \times S^{2n+1}$ with algebraic codimension 1 and their small deformations. (81m:32034)

Avis, S. J. (with Isham, C. J.) Generalized Spin structures on four-dimensional space-times. (81h:81087)

Benedetti, Riccardo (with Tognoli, Alberto) On real algebraic vector bundles. (French summary) (81e:14009)

Gromov, Mikhail L. (with Lawson, H. Blaine, Jr.) The classification of simply connected manifolds of positive scalar curvature. (81h:53036)

Isham, C. J. See Avis, S. J., (81h:81087)

Lawson, H. Blaine, Jr. See Gromov, Mikhail L., (81h:53036)

Schoenfeld, Jonathan F. Vierbein singularities in CP^2 . (81d:83035)

Sullivan, Dennis Hyperbolic geometry and homeomorphisms. (81m:57012)

Takahashi, Takao Deformations of Sasakian structures and its application to the Brieskorn manifolds. (81c:53024)

Tognoli, Alberto See Benedetti, Riccardo, (81e:14009)

57R20 Characteristic classes and numbers

- Amar, Vicente Navarro On the Chern classes and the Euler characteristic for nonsingular complete intersections. **81m:57016**
- Browder, William Complete intersections and the Kervaire invariant. **81i:57019**
- Chen, Kuo-Tsai Poles of maps into $P_n(\mathbb{C})$ and Whitehead integrals. **81k:57020**
- Dupont, Jean-Louis Bounds for characteristic numbers of flat bundles. **81i:57021**
- Gabrielov, A. M. Characteristic Pontrjagin cycles in a Čech complex. (Russian) **81d:57018**
- Judu, B. V. A difference cocycle for higher Pontrjagin classes. (Russian) **81d:57019**
- Milnor, John W. (with Stasheff, James) ★Характеристические классы. (Russian) [Characteristic classes] **81j:57014**
- Milčenko, A. S. The problem of invariance for characteristic classes of smooth manifolds. (Russian) **81c:57022**
- Neumann, Walter D. Homotopy invariance of Atiyah invariants. **81c:57023**
- (Šar'ko, M. A.) See Milnor, John W.; et al., **81j:57014**
- Stasheff, James See Milnor, John W., **81j:57014**

secondary classifications:

- Ambjørn, J. (with Felsager, B.; Olesen, P.) Kinematics of periodic structures in $SU(N)$ gauge theories. **(81m:81040)**
- Audin, Michèle La classe de cobordisme duale de la singularité et des points doubles d'une application différentiable. (English summary) **(81c:57031)**
- Brand, Neal Necessary conditions for the existence of branched coverings. **(81b:57001)**
- Christ, N. H. (with Jackiw, R.) Equality of magnetic charge and Pontrjagin index for Yang-Mills dyons. **(81i:81053)**
- Cotta-Ramusino, P. (with Dell'Antonio, G.) Self-duality and topological-like properties of lattice gauge field theories. A proposal. **(81c:81067)**
- Dell'Antonio, G. See Cotta-Ramusino, P., **(81c:81067)**
- Felsager, B. See Ambjørn, J.; et al., **(81m:81040)**
- Galewski, David E. (with Stern, Ronald J.) Orientation-reversing involutions on homology 3-spheres. **(81c:57009)**
- Gilkey, Peter B. Lefschetz fixed point formulas and the heat equation. **(81d:58047)**
- Hillier, Howard L. On the height of the first Stiefel-Whitney class. **(81f:57046)**
- Jackiw, R. See Christ, N. H., **(81i:81053)**
- Kwakubo, Katsuo Global and local equivariant characteristic numbers of G -manifolds. **(81g:57025)**
- Kosiński, Czes (with Stong, R. E.) $(\mathbb{Z}_2)^k$ -actions and characteristic numbers. **(81d:57027)**
- Liang, Wensor Translations on $M \times \mathbb{R}$. **(81j:57021)**
- MacPherson, Robert The combinatorial formula of Gabrielov, Gelfand and Losik for the first Pontrjagin class. **(81a:57022)**
- Marcum, Howard J. (with Randall, Duane) The homotopy Thom class of a spherical fibration. **(81k:55026)**
- Michelson, M. L. Clifford bundles, spinor bundles and Dirac operators. **(81m:53064)**
- Milčenko, A. S. C^* -algebras and K -theory. **(81d:58049)**
- Morita, Shigeyuki On characteristic classes of Riemannian foliations. **(81i:57024)**
- (with Nishikawa, Seiki; Sato, Hajime) On a special kind of Γ -foliation. (Japanese) **(81e:57029)**
- Mumford, D. Hirzebruch's proportionality theorem in the noncompact case. **(81a:32026)**
- Munk, O. R. Actions of the circle on homotopy complex projective spaces. (Russian) **(81m:57027)**
- Nishikawa, Seiki See Morita, Shigeyuki; et al., **(81e:57029)**
- Olesen, P. See Ambjørn, J.; et al., **(81m:81040)**
- Oproiu, Vasile The d^* -characteristic classes of the complex vector bundles. **(81g:53024)**
- Papastavridis, Stavros Relations among characteristic classes of n -manifolds imbedded in \mathbb{R}^{n+k} . **(81i:57028)**
- Piccinini, Paolo On symplectic Pontrjagin classes. (Italian. English summary) **(81j:55019)**
- Polombo, A. Classes de Chern. (See **80j:53064**)
- Randall, Duane See Marcum, Howard J., **(81k:55026)**
- Reventos, A. On the Gauss-Bonnet formula on odd-dimensional manifolds. **(81j:53066)**
- Sato, Hajime See Morita, Shigeyuki; et al., **(81e:57029)**
- Šokurov, A. V. The relationships between the Chern numbers of quasicomplex manifolds. (Russian) **(81i:55001)**
- Soulé, Christophe K -théorie de \mathbb{Z} et cohomologie étale. (English summary) **(81e:18016)**
- Stern, Ronald J. See Galewski, David E., **(81c:57009)**
- Stong, R. E. See Kosiński, Czes., **(81d:57027)**
- Suominen, Kalevi (with Walczak, Paweł) Chern characteristic classes of vector bundles. **(81b:58003)**
- Teleman, Nicolae Combinatorial Hodge theory and signature operator. **(81m:58005)**
- Ting, Wei-Lung On nontrivial characteristic classes of contact foliations. **(81i:57027)**
- Walczak, Paweł See Suominen, Kalevi, **(81b:58003)**

57R22 Topology of vector bundles and fiber bundles [See also 55Rxx.]

- Mielke, M. V. Differentiable decompositions of manifolds into totally C^∞ -path disconnected subsets. **81a:57023**

secondary classifications:

- Akbar-Zadeh, Hassan Fibré unitaire finisérien et groupes de transformations. (English summary) **(81m:53068)**
- Astey, Luis Geometric dimension of bundles over real projective spaces. **(81j:55004)**
- Beretta Bernardi, Luciaserena Some extendibility conditions for fibre bundles. (Italian summary) **(81i:32008)**
- Daniel, M. (with Viallet, C.-M.) The geometrical setting of gauge theories of the Yang-Mills type. **(81i:81015)**
- Honda, Morihito Fiber bundle analysis of global feature of gauge field theory. **(81d:81052)**
- Mogawa, Witold Flat bundles on homogeneous spaces. **(81m:53040)**

- Nyikos, Peter J. The topological structure of the tangent and cotangent bundles on the long line. **(81j:58012)**
- Osborn, Howard Basic spaces. **(81i:55017)**
- Schneider, Michael Holomorphic vector bundles on P_n . **(81g:14010)**
- Viallet, C.-M. See Daniel, M., **(81i:81015)**

57R25 Vector fields, frame fields, etc.

- Alves, J. Ubyrajara Formulation of a theorem concerning vector fields. (Portuguese) (See **80c:00009b**)
- Arrowsmith, D. K. The singularity $x\partial/\partial y$. **81a:57024**
- Kanai, Yukihiko Some Lie algebras of vector fields on foliated manifolds and their derivation algebras. **81b:57023**
- Koschorke, Ulrich Vector fields on $(4q+2)$ -manifolds. **81m:57017**
- Nye, J. F. Structural stability in evolving flow fields. **81a:57026**
- (with Thorndike, A. S.) Events in evolving three-dimensional vector fields. **81a:57025**
- Thorndike, A. S. See Nye, J. F., **81a:57025**

secondary classifications:

- Drinfel'd, V. G. (with Manin, Ju. I.) Yang-Mills fields, instantons, tensor products of instantons. **(81d:81050)**
- Lecomte, Pierre B. A. Lie algebras of order 0 on a manifold. **(81m:17018)**
- On some ideals of a Lie algebra of order zero. (French summary) **(81m:17019)**
- Manin, Ju. I. See Drinfel'd, V. G., **(81d:81050)**
- Minami, Masatsugu Dirac's monopole and the Hopf map. **(81m:81042)**
- Mizuhara, Akira On compact complex analytic surfaces admitting nonvanishing holomorphic vector fields. **(81f:32038)**
- Perrell, Peter B. On homotopies of transient vector fields. **(81k:58041)**
- Rodrigues, Paulo R. (with Roussarie, Robert) Sur l'existence de séparatrices pour les germes de difféomorphismes du plan. (English summary) **(81e:58045)**
- Roussarie, Robert See Rodrigues, Paulo R., **(81e:58045)**

57R27 Controllability of vector fields on C^∞ and real-analytic manifolds [See also 49E15, 49F15.]

secondary classifications:

- Brandenburg, Wolfgang (with Stehle, Werner) A practical closed form solution for systems with variable eigenvalue. via bilinear system theory. **(81m:93029)**
- Brockett, Roger W. (with Krishnaprasad, P. S.) A scaling theory for linear systems. **(81e:93036)**
- Dudnikov, P. I. (with Samborskiĭ, S. M.) Controllability criterion for systems in a Banach space (generalization of Chow's theorem). (Russian) **(81k:93010)**
- Groski, Jan M. Classification of closed sets of attainability in the plane. **(81h:49025)**
- Hermes, Henry On a stabilizing feedback attitude control. **(81m:93057)**
- Krishnaprasad, P. S. See Brockett, Roger W., **(81e:93036)**
- Lecomte, Pierre B. A. On a class of local Lie algebras over a manifold. **(81c:58067)**
- Liang, Chao-Chu On autonomous control systems on certain manifolds. **(81j:49022)**
- Petrov, N. N. Continuity of the Bellman function in degenerate cases. (Russian) **(81a:93064)**
- An analogue of the Birkhoff theory for invariant sets of control systems. (Russian) **(81d:93025)**
- Rebhuhn, Deborah Invertibility of C^∞ multivariable input-output systems. **(81d:93023)**
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 Veršinín, V. V. S. P. Novikov's algebraic spectral sequence for the spectrum $M\mathbb{S}_p$. (Russian) **81h:57020**

secondary classifications:

- Antonelli, P. L. (with Williams, Jeffrey George) Kinks and cobordism. **(81f:83029)**
 Knapp, K. On odd-primary components of Lie groups. **(81d:55017)**
 Koschorke, Ulrich (with Sanderson, Brian J.) Self-intersections and higher Hopf invariants. **(81i:55014)**
 Sanderson, Brian J. See Koschorke, Ulrich, **(81i:55014)**
 Smith, Victor P. Stable decompositions of classifying spaces with applications to algebraic cobordism theories. **(81a:55027)**
 Waldhausen, Friedrich Algebraic K-theory of topological spaces. I. **(81i:18014a)**
 Algebraic K-theory of topological spaces. II. **(81i:18014b)**
 Williams, Jeffrey George See Antonelli, P. L., **(81f:83029)**

57R95 Realizing cycles by submanifolds

- Brumfiel, Gregory W. Realizing homology classes by PL manifolds. **81k:57038**
 Buoncrisiano, Sandro (with Dedò, Maria) On representing homology classes. **81g:57022**
 Dedò, Maria See Buoncrisiano, Sandro, **81g:57022**
 Papastavridis, Stavros On realising mod-2 homology classes of manifolds by submanifolds. **81c:57038**
 Rees, Elmer (with Thomas, Emery) Realizing homology classes by almost-complex submanifolds. **81i:57035**
 Sanderson, Brian J. The geometry of Mahowald orientations. **81c:57039**
 Thomas, Emery See Rees, Elmer, **81i:57035**
 (Wilder, Raymond L.) See Brumfiel, Gregory W., **81k:57038**

secondary classifications:

- Ephraim, R. (with Kulkarni, R. S.) Combinatorial embeddings of surfaces as complex algebraic curves. **(81a:14007)**
 Kulkarni, R. S. See Ephraim, R., **(81a:14007)**

57R99 None of the above, but in this section

- Fichera, Gaetano Betti numbers of differentiable manifolds and multiplicity of eigenvalues. **81c:57040**
 Rozenfel'd, B. I. On cohomology of the smooth differential operators on a manifold. **81k:57039**
 Shiga, Hiroo Notes on links of complex isolated singular points. **81f:57039**
- secondary classifications:
- Calciagno, Enrico On the integer cohomology of differentiable manifolds. (Italian. English summary) **(81c:55006)**
 Chen, Bang-yen Totally umbilical submanifolds. **(81d:53036)**
 Chern, Shiang Shen From triangles to manifolds. **(81a:53001)**
 Dejer, Italo José G-transversality to CP^n . **(81d:57032)**
 Dwyer, W. G. Twisted homological stability for general linear groups. **(81b:18006)**
 Ehrlich, Paul E. (with Im Hof, Hans-Christoph) Dirichlet regions in manifolds without conjugate points. **(81d:53031)**
 Gromov, Mikhail L. Synthetic geometry in Riemannian manifolds. **(81g:53029)**
 (with Lawson, H. Blaine, Jr.) Spin and scalar curvature in the presence of a fundamental group. I. **(81g:53022)**
 Gürsey, Feza (with Jafarizadeh, M. A.; Tze, H. C.) Quaternionic multi $S^4 \approx HP^1$ gravitational and chiral instantons. **(81c:83006)**
 Hsiang, Wu Chung (with Pao, Peter Sie) The homology 3-spheres with involutions. **(81i:57038)**
 Im Hof, Hans-Christoph See Ehrlich, Paul E., **(81d:53031)**
 Jafarizadeh, M. A. See Gürsey, Feza; et al., **(81c:83006)**
 Lawson, H. Blaine, Jr. See Gromov, Mikhail L., **(81g:53022)**
 Madsen, Ib Henning Spherical space forms. **(81b:57033)**
 Mandelbaum, Richard (with Moishezon, Boris) On the topology of simply connected algebraic surfaces. **(81g:14018)**
 Moishezon, Boris See Mandelbaum, Richard, **(81g:14018)**
 Pao, Peter Sie See Hsiang, Wu Chung, **(81i:57038)**
 Pressley, Andrew Decompositions of the space of loops on a Lie group. **(81b:57037)**
 Sekino, Junpei (with Smith, J. Wolfgang) Homology on the category of submanifolds. **(81k:55029)**
 Shiohama, Katsuhiko Topology of positively curved manifolds with a certain diameter. **(81g:53030)**
 Smith, J. Wolfgang See Sekino, Junpei, **(81k:55029)**
 Tze, H. C. See Gürsey, Feza; et al., **(81c:83006)**

57Sxx Topological transformation groups [See also 20F34, 22-XX, 54H15, 58D05.]

57S05 Topological properties of groups of homeomorphisms

- Bowen, Rufus Hausdorff dimension of quasicircles. **81g:57023**
 Burghela, Dan The rational homotopy groups of $\text{Diff}(M)$ and $\text{Homeo}(M^*)$ in the stability range. **81d:57029**
 Hatcher, A. E. Linearization in 3-dimensional topology. **81g:57024**
 Ling, Wenner Translations on $M \times R$. **81j:57021**
 Schmitt, Bruno V. L'espace des homéomorphismes du plan qui admettent un seul point fixe d'indice donné est connexe par arcs. **81a:57036**
 Semenov, P. V. The homotopy type of a group of reflections of Hilbert space. (Russian) **81h:57021**
 Sprows, David J. Subhomotopy groups of the 2-sphere with n holes. **81m:57026**

secondary classifications:

- Abdel-Megied, M. (with Abdel-Tawab, Y.) The time topology on Minkowski space. (Arabic summary) (81i:83005)
- Abdel-Tawab, Y. See Abdel-Megied, M. (81i:83005)
- Fukui, Albert Structure of the group of homeomorphisms preserving a good measure on a compact manifold. (81k:58042)
- Pierce, J. F. (with Whitman, A. P.) Topological properties of the manifolds of configurations for several simple deformable bodies. (81g:73058)
- de Vries, J. Topics in the theory of topological transformation groups. (81g:54045)
- Whitman, A. P. See Pierce, J. F. (81g:73058)
- Zarrow, Robert A counting function for orientation reversing maps. (81f:58014)

57S10 Compact groups of homeomorphisms

- Lashof, Richard Obstructions to equivariance. 81d:57030
- Lifting semifree actions. 81h:7022
- Lisiewicz, Arunas Homotopy rigidity of linear actions: characters tell all. 81f:57040
- Homotopy rigidity of sturdy spaces. 81c:57041
- Robinson, Eric E. Inverse systems for light-open mappings onto polyhedra. 81b:57031
- Yoshida, Tomoyoshi On the rational homotopy of fixed point sets of circle actions. 81d:57031

secondary classifications:

- Lashof, Richard Stable G -smoothing. (81c:57021)

57S15 Compact Lie groups of differentiable transformations

- Brown, Robert F. Addendum to: "Fixed points of automorphisms of compact Lie groups" [Pacific J. Math. 63 (1976), no. 1, 79-87; MR 55 #1372]. 81h:57023
- Dejter, Italo José G -transversality to CP^n . 81d:57032
- Fintschel, Ronald Classification of circle actions on 4-manifolds. 81c:57036
- Hanschild, Volker Aktionen kompakter Liegruppen auf lokalen Räumen. 81e:57037
- Kawakubo, Katsuo Global and local equivariant characteristic numbers of G -manifolds. 81g:57025
- Weyl group actions and equivariant homotopy equivalence. 81j:57022
- Komiyama, Haruo See Watabe, Tsuyoshi, 81e:57039
- Liang, Chao Chu Smooth circle actions on manifolds. 81b:57032
- Lisiewicz, Arunas Equivariant K -theory and homotopy rigidity. 81k:57040
- Masie, O. R. Unitary actions of S^1 on complex projective spaces. (Russian) 81a:57037
- Actions of the circle on homotopy complex projective spaces. (Russian) 81m:57027
- Puppe, Volker Deformations of algebras and cohomology of fixed point sets. 81e:57038
- Rothenberg, Melvin (with Sondow, J.) Nonlinear smooth representations of compact Lie groups. 81d:57033
- Schwarz, Gerald W. Lifting smooth homotopies of orbit spaces. 81h:57024
- Sondow, J. See Rothenberg, Melvin, 81d:57033
- Watabe, Tsuyoshi (with Komiyama, Haruo) On the compact connected transformation group of n -sphere with codimension two principal orbit. 81e:57039

secondary classifications:

- Beck, Allen Homotopy rigidity for Grassmannians. (81b:57027)
- Cappell, Sylvain E. (with Shaneson, Julius L.) Fixed points of periodic maps. (81m:57029)
- ton Dieck, Tammo Idempotent elements in the Burnside ring. (81g:20015)
- Flaschke, Annick Classification homotopique des G -espaces. (English summary) (81a:55012)
- Komłowski, Czes Some formulae and conjectures associated with circle actions. (81k:57036)
- Oliver, Robert Free compact group actions on products of spheres. (81k:55005)
- Shaneson, Julius L. See Cappell, Sylvain E., (81m:57029)

57S17 Finite transformation groups

- Anderson, Douglas R. (with Hambleton, Ian) Balanced splittings of semifree actions of finite groups on homotopy spheres. 81c:57042
- Bojanowska, Agnieszka (with Jackowski, Stefan) A spectral sequence convergent to equivariant K -theory. 81m:57028
- Cappell, Sylvain E. (with Shaneson, Julius L.) Pseudofree actions. I. 81d:57034
- (with Shaneson, Julius L.) Fixed points of periodic maps. 81m:57029
- Dovermann, Karl Heinz Addition of equivariant surgery obstructions. 81d:57035
- Ewing, John The image of the Atiyah-Bott map. 81g:57026
- Fujii, Ken-ichi Extensions of group actions. 81e:57040
- Hambleton, Ian See Anderson, Douglas R., 81c:57042
- Honer, William D. Equivariant PL embeddings of spheres. 81f:57041
- Jackowski, Stefan See Bojanowska, Agnieszka, 81m:57028
- Kamishima, Yoshinobu Extension of involutions on spheres. 81d:57036
- Kulkarni, R. S. On Hurwitz' "84($g-1$) theorem" and pseudofree actions. 81c:57043
- Kwon, Kyung Whan (with Raymond, Frank A.) Periodic maps on product 3-manifolds which are isotopic to the identity. 81k:57041
- Madsen, Ib Henning Smooth spherical space forms. 81e:57041
- Spherical space forms. 81b:57033
- Pardon, William Mod 2 semicharacteristics and the converse to a theorem of Milnor. 81f:57042
- Przytycki, Józef H. Free actions of Z_n on handlebodies and surfaces. (Russian summary) 81h:57025
- Some remarks on actions of Z_n -groups on 3-manifolds. (Russian summary) 81h:57026
- Raymond, Frank A. See Kwon, Kyung Whan, 81k:57041

Rothenberg, Melvin Homotopy type of G -spheres. 81c:57044

Schultz, Reinhard Group actions on hypertoral manifolds. I. 81m:57030

Shaneson, Julius L. See Cappell, Sylvain E., 81d:57034 and Cappell, Sylvain E., 81m:57029

Thomas, C. B. Homotopy classification of free actions by finite groups on S^3 . 81c:57045

Vo Thanh Liem Factorizations of free actions of finite groups on compact Q -manifolds. 81i:57036

secondary classifications:

- Anderson, Douglas R. (with Hambleton, Ian) Balanced splittings of semifree actions on homotopy spheres. (81c:57048)
- ton Dieck, Tammo Semilinear group actions on spheres: dimension functions. (81h:55004)
- Dotzel, Ronald M. A note on the Borel formula. (81c:55004)
- Dovermann, Karl Heinz (with Rothenberg, Melvin) An equivariant surgery sequence and equivariant diffeomorphism and homeomorphism classification (a survey). (81m:57024)
- Fajuyigbe, Oladele An extension theorem for periodic transformations of surfaces. I. (81i:55004)
- Hambleton, Ian See Anderson, Douglas R., (81c:57048)
- Kamishima, Yoshinobu Certain free cyclic group actions on homotopy spheres, bounding parallelizable manifolds. (81b:57036)
- Kawauchi, Akio Vanishing of the Rochlin invariants of some Z_2 -homology 3-spheres. (81h:57015)
- Kim, Paik Kee (with Tollefson, Jeffrey L.) Splitting the PL involutions of nonprime 3-manifolds. (81m:57007)
- Matsuda, Toshimitsu On the \mathbb{Z}_n -equivariant self-homotopy equivalences of spheres. (81i:55007)
- Nagase, Teruo A generalization of Reidemeister-Singer theorem on Heegaard splittings. (81f:57005)
- Oliver, Robert (with Petrie, Ted) G surgery in the homotopy category and $K_0(Z(G))$. (81c:57033)
- Orlik, Peter (with Solomon, Louis) Unitary reflection groups and cohomology. (81f:32017)
- Petrie, Ted See Oliver, Robert, (81c:57033)
- Rothenberg, Melvin See Dovermann, Karl Heinz, (81m:57024)
- Solomon, Louis See Orlik, Peter, (81f:32017)
- Swarup, G. A. P. A. Smith conjecture for cable knots. (81c:57006)
- Tollefson, Jeffrey L. See Kim, Paik Kee, (81m:57007)
- Wakae, Masami The generalized Smith indices. IV. (81a:55007)
- West, J. E. (with Wong, R. Y. T.) Based-free actions of finite groups on Hilbert cubes with absolute retract orbit spaces are conjugate. (81f:57043)
- Wong, R. Y. T. See West, J. E., (81f:57043)
- Yoshida, Tomoyoshi On the Browder-Livesay invariant of free involutions on homology 3-spheres. (81i:57040)
- Zelinski, Ju. B. Some properties of equivariant mappings with local degree existing everywhere. (Russian) (81d:55005)

57S20 Noncompact Lie groups of transformations

- Dao Van Ca Extensions of transitive groups on compact homogeneous spaces. (Russian) 81m:57031
- Dovermann, Karl Heinz (with Petrie, Ted) Artin relation for smooth representations. 81m:57032
- Hirsch, Morris On stability of stationary points of transformation groups. 81b:57034
- Stability of stationary points and cohomology of groups. 81c:57046
- Petrie, Ted See Dovermann, Karl Heinz, 81m:57032
- Plante, J. F. Locally free affine group actions. 81d:57037
- Stowe, Dennis The stationary set of a group action. 81b:57035
- Uchida, Fuchi Classification of real analytic $SL(n, \mathbb{R})$ actions on n -sphere. 81c:57047

57S25 Groups acting on specific manifolds

- Abu Diak, F. See Natsheh, M. A., 81i:57039
- Anderson, Douglas R. (with Hambleton, Ian) Balanced splittings of semifree actions on homotopy spheres. 81c:57048
- Beck, Allen Homotopy rigidity for Grassmannians. 81b:57027
- Evans, Benny (with Maxwell, James) Quaternion actions on S^3 . 81i:57037
- Hambleton, Ian See Anderson, Douglas R., 81c:57048
- Hsiang, Wu Chung (with Pao, Peter Sie) The homology 3-spheres with involutions. 81i:57038
- James, David M. Free circle actions on homotopy nine spheres. 81j:57023
- Kamishima, Yoshinobu Certain free cyclic group actions on homotopy spheres, bounding parallelizable manifolds. 81b:57036
- Löffler, Peter Äquivariante Homotopie, äquivariante Bordismus und freie differenzierbare Involutionen auf Sphären. 81j:57024
- Maxwell, James See Evans, Benny, 81i:57037
- de Mistello, Isabel Dotti Extension of actions on Stiefel manifolds. 81e:57042
- Natsheh, M. A. PL involutions of $K \times S^1$. (Arabic summary) 81i:57042
- (with Abu Diak, F.) PL involutions of the Klein bottle. (Arabic summary) 81i:57039
- Pao, Peter Sie Nonlinear circle actions on the 4-sphere and twisting span knots. 81h:57028
- See also Hsiang, Wu Chung, 81f:57038
- Raymond, Frank A. The Nielsen theorem for Seifert fibered spaces over locally symmetric spaces. 81h:57029
- Schultz, Reinhard Finding framed Z_2 actions on exotic spheres. 81c:57049
- Wang, Kai Differentiable actions on Brieskorn manifolds. 81c:57050
- West, J. E. (with Wong, R. Y. T.) Based-free actions of finite groups on Hilbert cubes

with absolute retract orbit spaces are conjugate. **81f:57043**

Wong, R. Y. T. See West, J. E., **81f:57043**

Yoshida, Tomoyoshi On the Browder-Livesay invariant of free involutions on homology 3-spheres. **81i:57040**

secondary classifications:

Anderson, Douglas R. (with Hambleton, Ian) Balanced splittings of semifree actions of finite groups on homotopy spheres. **(81c:57042)**

Białynicki-Birula, Andrzej On action of $SL(2)$ on complete algebraic varieties. **(81i:14031)**

Guillemin, Victor (with Sternberg, Shlomo) The moment map and collective motion. **(81g:58011)**

Hambleton, Ian See Anderson, Douglas R., **(81c:57042)**

Laitinen, Erkki (with Madsen, Ib Henning) Topological classifications of $SL_2(\mathbb{F}_p)$ space forms. **(81h:57017)**

Lukavics, Arunas Homotopy rigidity of linear actions: characters tell all. **(81f:57040)**

Madsen, Ib Henning See Laitinen, Erkki, **(81h:57017)**

Sternberg, Shlomo See Guillemin, Victor, **(81g:58011)**

Umemura, Hiroshi Sur les sous-groupes algébriques primitifs du groupe de Cremona à trois variables. **(81k:14011)**

57S30 Discontinuous groups of transformations

Heil, Wolfgang (with Tollefson, Jeffrey L.) Deforming homotopy involutions of 3-manifolds to involutions. **81f:57044**

Tollefson, Jeffrey L. See Heil, Wolfgang, **81f:57044**

secondary classifications:

Farrell, F. T. (with Hsiang, Wu Chung) Remarks on Novikov's conjecture and the topological-Euclidean space form problem. **(81c:57032)**

Hsiang, Wu Chung See Farrell, F. T., **(81c:57032)**

Lücher, C. P. (with Rosenbaum P., M.) Gravitation as an internal gauge theory of the Poincaré group. **(81h:83037)**

Raymond, Frank A. The Nielsen theorem for Seifert fibered spaces over locally symmetric spaces. **(81h:57029)**

Robinson, Eric E. Inverse systems for light-open mappings onto polyhedra. **(81b:57031)**

Rosenbaum P., M. See Lücher, C. P., **(81h:83037)**

Sah, C. H. ★Hilbert's third problem: scissors congruence. **(81g:51011)**

Svarcman, O. V. A Chevalley theorem for complex crystallographic groups that are generated by mappings in the affine space C^n . (Russian) **(81h:32016)**

57S99 None of the above, but in this section

Kakutani, Shin-ichiro On the groups J_{2n+1} . **81m:57033**

Neaga, Alexandru C. Global slices in G -spaces. **81d:57038**

secondary classifications:

Gordon, Carolyn Riemannian isometry groups containing transitive reductive subgroups. **(81e:53036)**

Greub, Werner (with Petry, Herbert-Rainer) On the lifting of structure groups. **(81d:55019)**

Lecomte, Pierre B. A. A generalization of a theorem on affine transformations. **(81g:53023)**

Petry, Herbert-Rainer See Greub, Werner, **(81d:55019)**

Pop, I. On some orbit spaces. **(81e:55023)**

Smirnov, Ju. M. Shape theory and continuous transformation groups. (Russian) **(81g:54034)**

57Txx Homology and homotopy of topological groups and related structures

57T05 Hopf algebras [See also 16A24.]

secondary classifications:

Jordan, Bruce W. A lower central series for split Hopf algebras with involution. **(81d:16007)**

57T10 Homology and cohomology of Lie groups

Kassel, Christian Homologie du groupe linéaire général et K -théorie stable. (English summary) **81f:57045**

secondary classifications:

Kane, Richard The mod 3 cohomology of the exceptional Lie group E_7 . **(81a:57038)**

Kono, Akira (with Mimura, Mamoru) Cohomology mod 3 of the classifying space of the Lie group E_6 . **(81m:55015)**

Mimura, Mamoru See Kono, Akira, **(81m:55015)**

57T15 Homology and cohomology of homogeneous spaces of Lie groups

Čekator, I. V. Cohomology of generalized regular compact homogeneous spaces. (Russian. English summary) **81m:57034**

Hiller, Howard L. On the height of the first Stiefel-Whitney class. **81f:57046**

On the cohomology of real Grassmannians. **81a:14026**

Pressley, Andrew Decompositions of the space of loops on a Lie group. **81b:57037**

Shnahlun, Patrick On the signature of Grassmannians. **81f:57047**

secondary classifications:

Back, Allen Homotopy rigidity for Grassmannians. **(81h:57027)**

Burghelen, Dan Some rational computations of the Waldhausen algebraic K -theory. **(81i:18011)**

Lepowsky, James Generalized Verma modules, loop space cohomology and MacDonald-type identities. **(81a:17004)**

Yagita, Nobuaki Brown-Peterson cohomology groups of exceptional Lie groups. **(81g:55006)**

57T20 Homotopy groups of topological groups and homogeneous spaces

Fukui, Kazuhiko Homologies of the group $\text{Diff}^m(\mathbb{R}^n, 0)$ and its subgroups. **81m:57035**

Komlya, Katsuhiko On the equivariant homotopy of Stiefel manifolds. **81j:57025**

Rigas, A. Geodesic spheres as generators of the homotopy groups of O , BO . **81e:57040**

secondary classifications:

Alexander, James C. Calculating bifurcation invariants as elements of the homotopy of the general linear group. II. **(81f:58016)**

Burghelen, Dan The rational homotopy groups of $\text{Diff}(M)$ and $\text{Homeo}(M^n)$ in the stability range. **(81d:57029)**

Nomura, Yasutoshi Some homotopy groups of real Stiefel manifolds in the metastable range. III. **(81i:55015a)**

Some homotopy groups of real Stiefel manifolds in the metastable range. IV. **(81i:55015b)**

Oshima, Hideaki On the homotopy group $\pi_{2n+1}(U(n))$ for $n > 6$. **(81j:55015)**

57T25 Homology and cohomology of H -spaces

Kane, Richard The mod 3 cohomology of the exceptional Lie group E_8 . **81a:57038**

secondary classifications:

Adams, John Frank (with Wilkerson, Clarence) Finite H -spaces and algebras over the Steenrod algebra. **(81h:55006)**

Dieng, Youssouf Le foncteur $\text{Cotor}(-, -)$ et l'homologie des espaces fibrés. (English summary) **(81f:55025)**

Roos, Jan-Erik Relations between Poincaré-Betti series of loop spaces and of local rings. **(81g:55019)**

Theodoresco, William A. The cohomology of the projective n -plane. **(81a:55026)**

Wilkerson, Clarence See Adams, John Frank, **(81h:55006)**

57T30 Bar and cobar constructions [See also 18G55, 55Uxx.]

secondary classifications:

Baues, H. J. Geometry of loop spaces and the cobar construction. **(81m:55010)**

57T35 Applications of Eilenberg-Moore spectral sequences [See also 55R20, 55T20.]

secondary classifications:

Mimura, Mamoru (with Sambe, Yuriko) On the cohomology mod p of the classifying spaces of the exceptional Lie groups. I. **(81e:55025)**

Sambe, Yuriko See Mimura, Mamoru, **(81e:55025)**

57T99 None of the above, but in this section

secondary classifications:

McCrory, Clint Zeeman's filtration of homology. **(81b:55002)**

58-XX GLOBAL ANALYSIS, ANALYSIS ON MANIFOLDS [See also 32Cxx, 32Fxx, 46-XX, 47Hxx, 53Cxx; for geometric integration theory, see 49F20, 49F22.]

secondary classifications:

Fučík, Svatopluk (with Kufner, Alois) ★Nonlinear differential equations. **(81e:35001)**

Kufner, Alois See Fučík, Svatopluk, **(81e:35001)**

58-01 Elementary exposition, textbooks

(Cross, J. J.) See Ver Eecke, Paul, **81e:58001**

Georgiev, Georgi Iv. (with Oproiu, Vasile) ★Varietăți diferențiale finite și infinite dimensionale. Vol. II. (Romanian) [Finite- and infinite-dimensional differentiable manifolds. Vol. II.] **81j:58001**

Kahn, Donald W. ★Introduction to global analysis. **81i:58001**

Oproiu, Vasile See Georgiev, Georgi Iv., **81j:58001**

(Smith, F. R.) See Ver Eecke, Paul, **81e:58001**

Ver Eecke, Paul ★Calculus of jets and higher order connections. **81e:58001**

secondary classifications:

Arnold, V. I. ★Gewöhnliche Differentialgleichungen. (German) [Ordinary differential equations] **(81e:34001)**

Cattaneo-Gasparini, Ida Algebraic and geometric methods in some applied problems. (Italian) **(81m:00003)**

Chorin, Alexandre Joel (with Marsden, Jerrold E.) ★A mathematical introduction to

- fluid mechanics. (81m:76001)
- Dodson, C. T. J. ★Categories, bundles and spacetime topology. (81i:83001)
- Dubrovina, B. A. (with Novikov, S. P.; Fomenko, A. T.) ★Современная геометрия. (Russian) [Modern geometry] (81f:53001)
- Fomenko, A. T. See Dubrovina, B. A.; et al., (81f:53001)
- (Mai, Brigitte) See Arnold, V. I., (81e:34001)
- Marsden, Jerrold E. See Chorin, Alexandre Joel, (81m:76001)
- Novikov, S. P. See Dubrovina, B. A.; et al., (81f:53001)
- 58-02 Advanced exposition (research surveys, monographs, etc.)
- Kijowski, Jerzy Symplectic relations and partial differential equations. (Polish) 81i:58002
- secondary classifications:
- Rousseau, Christiane Complex structures on topoi. (81h:53001)
- 58-03 Historical (must also be assigned at least one classification number from Section 01)
- 58-04 Explicit machine computation and programs (not the theory of computation or programming)
- 58-06 Proceedings, conferences, etc.
- (Grneta, Miroslav) See Global analysis, 81a:58001
- (Marsden, Jerrold E.) See Global analysis, 81a:58001
- (Mittelman, Hans-Dietel) See Bifurcation problems and their numerical solution, 81i:58003
- (Nitecki, Zbigniew) See Global theory of dynamical systems, 81j:58002
- (Osserman, Robert) See Geometry of the Laplace operator, 81c:58002
- (Patodi, Vijay Kumar) See Geometry and analysis, 81i:58005
- (Robinson, Clark) See Global theory of dynamical systems, 81j:58002
- (Weber, Helmut) See Bifurcation problems and their numerical solution, 81i:58003
- (Weinstein, Alan) See Geometry of the Laplace operator, 81c:58002
- Algebraic analysis ★Recent development of algebraic analysis. (Japanese) 81m:58001
- Analysis ★Global analysis. 81a:58001
- ★Geometry and analysis. 81i:58005
- Bifurcation problems and their numerical solution ★Bifurcation problems and their numerical solution. 81i:58003
- Bressanone ★Dynamical systems. 81i:58004
- Calgary, Alta. ★Global analysis. 81a:58001
- Conference:
- Global Theory of Dynamical Systems ★Global theory of dynamical systems. 81j:58002
- Dortmund ★Bifurcation problems and their numerical solution. 81i:58003
- Dynamical systems ★Dynamical systems. 81i:58004
- ★Global theory of dynamical systems. 81j:58002
- Evanson, Ill. ★Global theory of dynamical systems. 81j:58002
- Geometry and analysis ★Geometry and analysis. 81i:58005
- Geometry of the Laplace operator ★Geometry of the Laplace operator. 81c:58002
- Global analysis ★Global analysis. 81a:58001
- Global theory of dynamical systems ★Global theory of dynamical systems. 81j:58002
- Honolulu, Hawaii ★Geometry of the Laplace operator. 81c:58002
- Laplace operator ★Geometry of the Laplace operator. 81c:58002
- Proceedings of Symposia in Pure Mathematics ★Geometry of the Laplace operator. 81c:58002
- Recent development of algebraic analysis ★Recent development of algebraic analysis. (Japanese) 81m:58001
- Seminar:
- Canadian Mathematical Congress ★Global analysis. 81a:58001
- Summer School:
- C.I.M.E., Dynamical Systems ★Dynamical systems. 81i:58004
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- Trần Huy Hoàng Sur le feuilletage défini par une équation de Pfaff algébrique sur $P_n \mathbb{C}$. 81f:58002
- Wahlquist, Hugo See Estabrook, Frank B., 81h:58006

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- D'Auria, R. (with Sciuto, S.) Group theoretical construction of two-dimensional supersymmetric models. (81m:81072)
- Gérard, Raymond See Charrière, Hélène, (81j:12021)
- Jouanolou, J. P. ★Equations de Pfaff algébriques. (French) [Algebraic Pfaffian equations] (81k:14000)
- Kita, Michitake The Riemann-Hilbert problem and its application to analytic functions of several complex variables. (81c:32028a)
- The Riemann-Hilbert problem in several complex variables. II. (81c:32028b)
- Perko, Richard Zur Theorie der partiellen Differentialgleichungen vom Briot-Bouquet'schen Typ. (81g:35012)
- Sciuto, S. See D'Auria, R., (81m:81072)
- Vajkš, V. A. A contribution to Pfaff-Bilimović differential forms. (Russian. English and Serbo-Croatian summaries) (81g:49031)

58A20 Jets

- de Carvalho, Carlos A. A. Decomposition theorem of classes of multi-jets. (Portuguese) (See 80c:00010b)
- Dekrét, Anton On higher order point singularities of some geometric object fields. (Russian summary) 81k:58002
- Egiazarjan, K. M. The structure of affine connections and tensor fields on a higher order tangent bundle. (Russian) 81a:58004
- Kohli, Ivan Structure morphisms of prolongation functors. (Russian summary) 81m:58012
- Krupka, Demeter Reducibility theorems for differentiable liftings in fiber bundles. 81k:58010
- On the Lie algebras of higher differential groups. (Russian summary) 81c:58006
- Fundamental vector fields on type fibres of jet prolongations of tensor bundles. (Russian summary) 81m:58013
- Nesage, Alexandru C. A geometrical interpretation for the holonomic prolongations of a principal fibre bundle. (Romanian summary) 81d:58006
- Payne, Dean A. Bäcklund transformations in several variables. 81j:58010
- Putu, Mircea Sur la cohomologie relative des courants. 81b:58007
- Roy, T. See Roy Chowdhury, A., 81j:58011
- Roy Chowdhury, A. (with Roy, T.) Prolongation structure and inverse scattering formalism for the supersymmetric sine-Gordon equation in ordinary space-time variables. 81j:58011
- Rutz, Cefelino Certaines identifications dans les espaces de jets. 81f:58003

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- Belicli, G. R. Normal form for germs of C^∞ -mappings. (Russian) (81k:58011) (Crom, J. J.) See Ver Eecke, Paul, (81c:58001)
- Etayo, José J. Lifts of derivations and differentiations to the tangent bundle. (81h:58013)
- Ferreire, Edouardo S. (with Petitjean, Alexis) Algèbres de Lie régulières. (English summary) (81f:58047)
- de León, Manuel Sprays and connections on the tangent bundle of order 2. (81h:58031)
- Morris, Hedley C. Inverse scattering problems in higher dimensions: Yang-Mills fields and the supersymmetric sine-Gordon equation. (81g:81034)
- Motreanu, Dumitru Embeddings of C^∞ -sub-Cartesian spaces. (81d:58009)
- Petitjean, Alexis See Ferreire, Edouardo S., (81f:58047)
- Pirani, F. A. E. Geometry of Bäcklund transformations. (81j:58007)
- Roy, T. See Roy Chowdhury, A. N., (81m:35130)
- Roy Chowdhury, A. N. (with Roy, T.) Prolongation structure for Langmuir solitons. (81m:35130)
- (Smith, F. R.) See Ver Eecke, Paul, (81c:58001)
- Ver Eecke, Paul ★Calculus of jets and higher order connections. (81c:58001)

58A25 Currents

- Crătoveanu, M. (with Putu, Mircea) On the cohomology with currents of a compact Kähler manifold. 81c:58007
- Laurent-Thibaut, Christine Produits de courants. (English summary) 81c:58009
- Monti Bragaglia, Giacomo (with Torquati, Franco) An application of invariant currents to compact Lie groups. (Italian. English summary) 81d:58007
- Putu, Mircea See Crătoveanu, M., 81c:58007
- Torquati, Franco See Monti Bragaglia, Giacomo, 81d:58007
- secondary classifications:
- Ermine, Jean-Louis Courants ergodiques et répartition géométrique. (81m:10095)
- Ochiai, Takushiro Cone structures and positive currents. (81d:32019)
- Putu, Mircea de Rham currents and electromagnetic field. (81j:78008)
- v. Wentseholz, Cornelius Topological and Noether-conservation laws. (81a:49023)

58A30 Vector distributions (subbundles of the tangent bundles)

- Andrzejczak, G. On some form determined by a distribution on a Riemannian manifold. 81b:58008
- Bureš, Jarolím (with Vanžura, Jiří) A Nijenhuis-type tensor on the quotient of a distribution. 81f:58007
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- Obideanu, V. Dérivations-distributions. 81c:58010
- Tan, Sin Leng Integrability of complementary distributions. 81d:58008
- Vanžura, Jiří See Bureš, Jarolím, 81f:58007
- Viljancov, V. P. Integrable distributions with singularities. (Russian) 81f:58004

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- Clarke, C. J. S. See Shipinski, M. J., (81f:83032)
- Fujimoto, T. Addendum to: "Nonlinear generalization of the Frobenius theorem" [J. Math. Econom. 6 (1979), no. 1, 17-21; MR 80h:90022]. (81i:90027)
- Rowe, E. G. P. Consequences of a singular gauge transformation. (Italian summary) (81f:81066)
- Shipinski, M. J. (with Clarke, C. J. S.) Singular points and projective limits in relativity. (81f:83032)
- Stefan, P. Integrability of systems of vector fields. (81h:49026)
- Viljancov, V. P. The Frobenius theorem for differential systems with singularities. (Russian. English summary) (81j:58051)
- Ziemian, Bogdan On G-invariant distributions. (81h:58023)

58A35 Stratified sets [See also 32Bxx, 58Cxx.]

- Brodersen, Hans (with Trotman, David J. A.) Whitney (b)-regularity is weaker than Kuo's ratio test for real algebraic stratifications. 81h:58008
- Kambouchner, Anne (with Trotman, David J. A.) Whitney (a)-faults which are hard to detect. 81g:58002b
- Trotman, David J. A. Interprétations topologiques des conditions de Whitney. 81f:58006
- Geometric versions of Whitney regularity for smooth stratifications. 81g:58006
- See also Kambouchner, Anne, 81g:58002b and Brodersen, Hans, 81h:58008

secondary classifications:

- Acquistapace, F. (with Brogli, F.; Lazzeri, F.) Strata in the deformation of real isolated singularities are in general noncontractible. (81h:58012)
- Brasselet, Jean-Paul Homologie des fibrés à singularités (suite spectrale des applications C-stratifiées). (81h:55013)
- Brogli, F. See Acquistapace, F.; et al., (81h:58012)
- Lazzeri, F. See Acquistapace, F.; et al., (81h:58012)
- Natsume, Hiroko The realization of abstract stratified sets. (81c:57029)
- Pignoni, Roberto Generic functions on a stratified space. (Italian summary) (81f:58011)
- Density and stability of Morse functions on a stratified space. (81c:58017)
- Sussmann, Héctor J. Single-input observability of continuous-time systems. (81f:93025)
- Verona, Andrei Triangulation of stratified fibre bundles. (81f:57019)

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- Cegielka, Kazimierz The differential space of a differential module. (Polish summary) 81h:58011
- Motreanu, Dumitru Embeddings of C^∞ -sub-Cartesian spaces. 81d:58009
- Reiffen, Hans-Jörg Metrische Größen in C^∞ -Räumen. (English summary) 81h:58012
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- Motreanu, Dumitru Preringed manifolds and bundles with structure group. (Romanian summary) (81c:58005)

58A99 None of the above, but in this section

- Terug, Chun Lian Natural vector bundles and natural differential operators. 81c:58009

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- Arnowitz, R. See Nath, Pran, (81a:83037)
- Berezin, F. A. The mathematical basis of supersymmetric field theories. (81i:81096)
- Breitenlohner, Peter (with Sohnius, Martin F.) Superfields, auxiliary fields and tensor calculus for $N=2$ extended supergravity. (81a:83038)
- Brown, M. (with Gates, S. James, Jr.) Superspace geometry and $N=1$ nonminimal supergravity. (81a:83036)
- Dekrét, Anton On bilinear structures on differentiable manifolds. (81h:53033)
- Fischer, Elliot Similarity solutions of the Einstein and Einstein-Maxwell equations (81a:83005)
- Gates, S. James, Jr. See Brown, M., (81a:83036)
- Lawvere, F. William Categorical dynamics. (81c:18019)
- Nath, Pran (with Arnowitz, R.) Supergravity geometry in superspace. (81a:83037)
- van Nieuwenhuizen, P. Unity of supergravity and Z_2 or $Z_2 \times Z_2$ or $Z_2 \times Z_3 \times Z_3$ gradings of gauge and ghost fields. (81j:83045)
- Prästaro, Agostino On the general structure of continuum physics. I. Derivative spaces (Italian summary) (81m:73012)
- Smentek, Zygfryd An introduction to cohomology groups in the operational calculus (81d:44005)
- Sohnius, Martin F. See Breitenlohner, Peter, (81a:83038)
- Šurygin, V. V. Totally geodesic subspaces in spaces over algebras. (Russian) (81f:53052)

58Bxx Infinite-dimensional manifolds

58B05 Homotopy and topological questions

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- Atiyah, Michael Geometrical aspects of gauge theories. (81i:81066)
- Dobrowolski, T. Smooth and R-analytic negligibility of subsets and extension of homeomorphisms in Banach spaces. (81c:57013)
- Swanson, R. C. Linear symplectic structures on Banach spaces. (81j:58014)

58B10 Differentiability questions

- Caddeo, Renzo See Dediu, Mihai; et al., 81d:58010
- Dediu, Mihai. (with Caddeo, Renzo; Dediu, Sofia) The extension of an E-premanifold to an E-manifold. (Italian. French summary) 81d:58010
- Dediu, Sofia See Dediu, Mihai; et al., 81d:58010

58B12 Questions of holomorphy [See also 32-XX, 46G20.]

- Nishihara, Masaru On injective analytic mappings of infinite-dimensional complex manifolds. 81c:58010

secondary classifications:

- Barroso, Jorge Alberto (with Nachbin, Leopoldo) Some topological properties of spaces of holomorphic mappings in infinitely many variables. (81i:46049)

Bierstedt, Klaus-Dieter (with Meise, Reinhold) Aspects of inductive limits in spaces of germs of holomorphic functions on locally convex spaces and applications to a study of $(H(U), \tau_\omega)$. (81h:46052)

Globevnik, J. On the range of analytic maps on $c_0(I)$. (Italian summary) (81h:46053)

Meise, Reinhold See Bierstedt, Klaus-Dieter, (81h:46052)

Mujica, Jorge Spaces of germs of holomorphic functions. (81h:46054)

Nachbin, Leopoldo Warum unendlichdimensionale Holomorphie? (81h:46053)

See also Barroso, Jorge Alberto, (81h:46049)

58B15 Fredholm structures [See also 47A53.]

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Borisovič, Ju. G. Solvability of nonlinear equations with Fredholm operators. (Russian) 81f:58006

Plastock, R. A. See Berger, M. S., 81d:58011

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Antonović, A. B. Operators with shift generated by the action of a compact Lie group. (Russian) (81h:47011)

Borisovič, Ju. G. (with Svjagin, V. G.; Mänz, P.) Nichtlineare Fredholm-Operatoren, Abbildungsgrad und Anwendungen auf nichtlineare Eigenwertprobleme. (81d:58019)

Charris Castañeda, Jairo A. Certain spaces of holomorphic functions and their applications. II. (Spanish) (81h:47019)

Carto, Raul E. On the connectedness of invertible n -tuples. (81e:47035)

Jayaraman, N. Fredholm operators and index theory. (81f:47017)

Mänz, P. See Borisovič, Ju. G.; et al., (81d:58019)

Svjagin, V. G. See Borisovič, Ju. G.; et al., (81d:58019)

58B20 Riemannian, Finsler and other geometric structures [See also 53C20, 53C60.]

Anastase, Mihai (with Nicolescu, Liviu) Directions caractéristiques associées à une paire de connexions linéaires sur une variété de Banach. 81d:58012

Connexions sur les fibrés spinoriels. 81e:58011

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Fara, Franco Derivations of graded algebras and nonlinear connections of arbitrary order. (Italian. English summary) (81m:53069)

Kovarik, Zdeněk V. Manifolds of frames of projectors. (81h:58002)

Lipscey, Za. Parametrization of nonsmooth boundaries for mixed type boundary value problems. (81m:26017)

Provost, J. P. (with Vallee, G.) Riemannian structure on manifolds of quantum states. (81h:81039)

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58B25 Group structures and generalizations on infinite-dimensional manifolds [See also 22E65, 58D05.]

Kanitani, Jōyō Sur la translation à droite par rapport à un groupe à dimension infinie. 81e:58013

Plasaut, Michèle Q -variétés banachiques. Application à l'intégrabilité des algèbres de Lie. (English summary) 81h:58013

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de la Harpe, Pierre Moyennabilité du groupe unitaire et propriété P de Schwartz des algèbres de von Neumann. (81g:46067)

Les extensions de $gl(E)$ par un noyau de dimension finie sont triviales. (English summary) (81b:22019)

Plasaut, Domingos An application of Frobenius theorem in a Banach scale. (81d:22021)

Linear connected subgroups of a Lie group in a locally convex space. (81c:22029)

Semenov, P. V. The homotopy type of a group of reflections of Hilbert space. (Russian) (81h:57021)

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Ragusa, David L. Curvatures and curves in Hilbert space. 81j:58015

secondary classifications:

Guerreiro, Claudia S. Whitney's spectral synthesis theorem in infinite dimensions. (81d:32011)

Motreanu, Dumitru Embeddings of C^∞ -sub-Cartesian spaces. (81d:58009)

58Cxx Calculus on manifolds; nonlinear operators [See also 47Hxx.]

58C05 Real-valued functions

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Zabrejko, P. P. (with Zafievskii, A. V.) Conditions for the extremum of smooth functions. (Russian) 81m:58014

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Eguchi, Tohru (with Gilkey, Peter B.; Hanson, Andrew J.) Gravitation, gauge theories and differential geometry. (81m:83002)

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Hanson, Andrew J. See Eguchi, Tohru; et al., (81m:83002)

Merkov, A. B. Some properties of smooth mappings. (Russian. English summary) (81a:26009)

58C06 Set valued and function-space valued mappings

58C07 Continuity properties of mappings

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Restrepo, Guillermo Continuity of polynomials in topological vector spaces. (Spanish) 81h:58003

secondary classifications:

Bondarenko, V. A. (with Zabrejko, P. P.) The superposition operator in Hölder spaces. (Russian) (81d:47041)

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58C10 Holomorphic maps [See also 32-XX.]

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Aron, Richard M. Extension and lifting theorems for analytic mappings. (81h:46006)

Columbese, J. F. A result of existence of holomorphic maps which admit a given asymptotic expansion. (81h:46061)

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Écalle, Jean Synthèse harmonique explicite sur le groupe des germes de transformations holomorphes tangentes à l'identité. (English summary) (81f:22010)

Globevnik, J. Separability of analytic images of some Banach spaces. (81j:46022)

Gramsch, Bernhard (with Kabblo, Winfried) Spectral theory for Fredholm functions. (81d:47008)

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Komatsu, Hironoburo Ultradifferentiability of solutions of ordinary differential equations. (81j:34066)

Matos, Mário C. Correction to: "On Malgrange theorem for nuclear holomorphic functions in open balls of a Banach space" [Math. Z. 162 (1978), no. 2, 113-123; MR 58 #30226]. (81e:46028)

Mayer, Dieter H. On composition operators on Banach spaces of holomorphic functions. (81e:47025)

Niederbichler, Günter See Reich, Ludwig, (81h:39005)

Reich, Ludwig (with Niederbichler, Günter) Über multiplikative Funktionen von Automorphismen des Potenzreihenringes und invariante Funktionen analytischer Iterationen. (81h:39005)

58C15 Implicit function theorems; global Newton methods

Cellina, Arrigo (with Sartori, Caterina) The search for fixed points under perturbations. 81e:58013

Fabian, Marian On relations between local surjection and implicit function theorems. (Czech and Russian summaries) 81h:58004

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Fonseca, A. A. Continuation with respect to a parameter of solutions of nonlinear equations. (Russian) 81e:58014

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Foster, M. J. A composition theorem for manifolds of fibre maps. 81d:58014

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Nashed, M. Z. Generalized inverse mapping theorems and related applications of generalized inverses in nonlinear analysis. 81h:58010

Papaghiuc, Neculai Sur le théorème d'inversion locale pour des applications entre des espaces localement convexes. (Romanian summary) 81h:58005

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- Acar, Robert C. See Todd, Michael J., (81f:57013)
- Adams, E. (with Ames, W. F.) On contracting interval iteration for nonlinear problems in \mathbb{R}^n . I. Theory. (81d:65021)
- Allgower, Eugene L. (with Georg, Kurt) Simplicial and continuation methods for approximating fixed points and solutions to systems of equations. (81d:47040)
- Altman, Mieczysław Existence theorems for nonlinear operator equations without continuity condition. (81f:47058)
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- Balks, Martin (with Goldner, G.) On approximate solving by sequences the equations in Banach spaces. (81f:65043)
- On convergent sequences of second order with respect to a mapping. (81m:65091)
- (with Muntean, Ioan) A unification of Newton's methods for solving equations. (81k:65062)
- Bruck, Ronald E. (with Reich, Simeon) A general convergence principle in nonlinear functional analysis. (81j:47049)
- Bur, J. C. P. Numerical solution of systems of nonlinear equations. (81m:65072)
- Černjak, V. Ja. On an investigation of the convergence of an iteration process with disparate arguments. (Russian) (81j:65076)
- Chichilashvili, Graciela On fixed point theorems and social choice paradoxes. (81e:90009)
- Czaplik, József The application of higher-order iterative methods for the solution of operator equations. (Polish. Russian and English summaries) (81e:47047)
- Dancer, E. N. An implicit function theorem with symmetries and its application to nonlinear eigenvalue equations. (81e:58021)
- Descl, J. Extensions of the continuity of point-to-set maps: applications to fixed point algorithms. (81b:90131)
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- García, C. B. (with Zangwill, W. L.) An approach to homotopy and degree theory. (81d:55044)
- (with Li, T. Y.) On the number of solutions to polynomial systems of equations. (81m:65074)
- Gaur, P. B. L. See Prasad, V. C., (81j:94039)
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- Goldner, G. See Balks, Martin, (81f:65043)
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- Kleinerman, Sergiu Global existence for nonlinear wave equations. (81b:35050)
- Kurčenko, T. S. The convergence of nonstationary projection-iteration variants of the basic and "refined" Newton-Kantorovich methods for solving nonlinear operator equations. (Russian) (81k:47056)
- Li, T. Y. See García, C. B., (81m:65074)
- McDowell, D. G. A characterization of the minimizer of a function. (81f:90094)
- Minicuci, Michel Un théorème des fonctions implicites. (English summary) (81a:32006)
- Mooney, J. W. (with Voss, Heinrich; Werner, Bodo) The dependence of critical parameter bounds on the monotonicity of a Newton sequence. (81c:35049)
- Moore, Gerald (with Spence, Alastair) The calculation of turning points of nonlinear equations. (81f:65047)
- Moore, John Douglas (with Schlafly, Roger) On equivariant isometric embeddings. (81h:53059)
- Muntean, Ioan See Balks, Martin, (81f:65062)
- Polak, E. See Gonzaga, C., (81b:90119)
- Potra, Florian Alexandru On an iterative method for solving nonlinear equations in ordered Banach spaces. (81f:65042)
- On a modified secant method. (81h:65057)
- (with Pták, Vlastimil) On a class of modified Newton processes. (81m:65096)
- (with Pták, Vlastimil) Sharp error bounds for Newton's process. (81c:65027)
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- Pták, Vlastimil A rate of convergence. (81f:65045)
- See also Potra, Florian Alexandru, (81c:65027) and Potra, Florian Alexandru, (81m:65096)
- Reddies, George W. Newton's method and high order singularities. (81c:65026)
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- Saigal, Ramesh See Saari, Donald G., (81m:65078)
- Schafly, Roger See Moore, John Douglas, (81h:53059)
- Sidorov, N. A. The method of continuation with respect to the parameter in the neighborhood of a branch point. (Russian) (81g:65066)
- Spence, Alastair See Moore, Gerald, (81f:65047)
- Todd, Michael J. (with Acar, Robert C.) A note on optimally dissecting simplices. (81f:57013)
- Volokitin, S. S. Investigation of the convergence of block modifications of the Newton-Kantorovich method. (Russian) (81f:65050)
- Voss, Heinrich See Mooney, J. W.; et al., (81c:35049)
- Watson, Layne T. A globally convergent algorithm for computing fixed points of C^2 maps. (81h:55006)
- Werner, Bodo See Mooney, J. W.; et al., (81c:35049)
- Wildenauer, P. Auswirkungen von Rundungen und Näherungen bei einer Klasse iterativer Verfahren. (English and Russian summaries) (81d:65020)
- Zangwill, W. L. See García, C. B., (81d:55044)
- Zhepkov, P. P. Some projection-iteration methods for the approximation construction of implicit functions. (Russian. English summary) (81g:65076)

58C20 Differentiation theory (Gâteaux, Fréchet, etc.) [See also 26Ex, 46Gxx.]

- Abatzoglou, Theagenis The metric projection on C^2 manifolds in Banach spaces. (81k:58006)
- The Lipschitz continuity of the metric projection. (81k:58007)
- Antoine, Philippe Conditions pour un minimum local d'une fonction différentiable. (81e:58014)
- Colombeau, J. F. Infinite-dimensional C^∞ mappings with a given sequence of derivatives at a given point. (81a:58006)
- Ferraris, Marco A new approach to differential calculus in locally convex spaces. (81d:58015)
- Gähler, W. Convergence structures and differential calculus. (81k:58008)
- Hiriart-Urruty, Jean-Baptiste Mean value theorems in nonsmooth analysis. (81f:58011)
- Mirică, Ștefan A note on the generalized differentiability of mappings. (81k:58009)
- Mirzahanjan, E. A. On the properties of a class of mappings of subsets of Hilbert space. (Russian. Armenian summary) (81f:58007)
- Papaghic, Neculai Sur le calcul différentiel de Marinescu dans les espaces localement convexes. (81a:58008)
- Plymen, R. J. The Laplacian and the Dirac operator in infinitely many variables. (81g:58003)
- Shi, Shi Zhong Remarques sur le gradient généralisé. (English summary) (81j:58018)
- Stamm, E. Recent developments in the analytic perturbation theory of ordinary differential equations. (81a:58009)
- Yamamoto, Sadaaki A note on the omega lemma. (81c:58015)
- Yamamoto, Takeshi On differential equations in the sense of Fréchet differentials. (Japanese) (81e:58015)

secondary classifications:

- Borwein, J. M. Weak local supportability and applications to approximation. (81h:46016)
- Clarke, Frank H. Nonsmooth analysis and optimization. (81e:90086)
- Colombeau, J. F. Sur les applications différentiables et analytiques au sens de J. Sebastião e Silva. (81g:46054)
- Differentiable mappings on real nuclear Silva spaces and applications. (81g:46055)
- Dierolf, Peter (with Voigt, Jürgen) Weak compactness of Fréchet derivatives: application to composition operators. (81h:47062)
- Dore, Giovanni The Newton-Kantorovich method in locally convex topological vector spaces. (Italian. English summary) (81h:47055)
- Gregory, David A. Upper semicontinuity of subdifferential mappings. (81e:46009)
- Gros, Christian Approche de la dualité en optimisation multicritère. (81f:90116)
- Hiriart-Urruty, Jean-Baptiste (with Thibault, Lionel) Existence et caractérisation de différentielles généralisées d'applications localement lipschitziennes d'un espace de Banach séparable dans un espace de Banach réflexif séparable. (English summary) (81h:90125)
- Kieleyka, Stanisław The generalization of the theorem on directional derivative for the functional maximum and some of its applications. (81a:58007)
- Kusraev, A. G. (with Kutateladze, S. S.) The Rockafellar convolution and the characterization of optimal trajectories. (Russian) (81f:49005)
- Kutateladze, S. S. See Kusraev, A. G., (81f:49005)
- L'vovskii, M. N. On the theory of harmonic mappings with bounded dilatation. (Russian) (81a:58022)
- Meise, Reinhold Spaces of differentiable functions and the approximation property. (81h:46021)
- Papaghic, Neculai Sur le théorème d'inversion locale pour des applications entre des espaces localement convexes. (Romanian summary) (81k:58005)
- Applications du calcul différentiel dans les espaces localement convexes à l'analyse globale. (81d:58020)
- Peralba, Jean-Claude Caractérisation du sous-différentiel associé à un problème de minimisation convexe à contrainte vectorielle. Application au calcul des variations. (English summary) (81h:90120)
- Pomerol, Jean-Charles Application de la programmation convexe à la programmation différentiable. (English summary) (81g:90075)
- Rockafellar, R. T. Generalized directional derivatives and subgradients of nonconvex functions. (81f:49006)
- Sachs, Eckehard Differentiability in optimization theory. (81d:49013)
- Shapiro, Victor L. Saddle points and Ritz-Galerkin approximations. (81f:26015)
- Šilov, G. E. Дифференцирование функций в линейных пространствах. (Russian) [Differentiation of functions in linear spaces] (81c:26001)
- Théra, Michel Calcul ϵ -sous-différentiel des applications convexes vectorielles. (English summary) (81d:46046)
- Thibault, Lionel Épidifférentiels de fonctions vectorielles. (English summary) (81f:49015)
- See also Hiriart-Urruty, Jean-Baptiste, (81h:90125)
- Vinokurov, V. A. Corrections: "Regularizability, and analytic representability" [Dokl. Akad. Nauk SSSR 228 (1975), no. 2, 269-272; MR 52 #1611] and "The differentiability of functions from a Sobolev space" [Dokl. Akad. Nauk SSSR 227 (1976), no. 1, 15-18; MR 53 #3682]. (Russian) (81a:46038)
- Voigt, Jürgen See Dierolf, Peter, (81h:47062)
- Yamamoto, Sadaaki Groups of C^∞ -diffeomorphisms and differentiation in locally convex spaces. (81c:58023)
- Notes on the inverse mapping theorem in locally convex spaces. (81f:58017)
- Zabrejko, P. P. (with Zafievskii, A. V.) Conditions for the extremum of smooth functions. (Russian) (81m:58014)
- See also Šilov, G. E., (81c:26001)
- Zafievskii, A. V. See Zabrejko, P. P., (81m:58014)

58C25 Differentiable maps

- Ding Dinh Ang See Vũ Trọng Tuấn, 81b:58009
- Dimca, Alexandru Morse functions and stable mappings. 81c:58016
- Habbe, M. P. Lie theory and applications to entropy and approximation. 81f:58008
- Ladlow-Wiechers, J. Division theorem for C^k functions. 81f:58009
- Nachter, Leopoldo On the closure of modules of continuously differentiable mappings. 81g:58004
- Pignoni, Roberto Density and stability of Morse functions on a stratified space. 81c:58017
- Rassias, Themistocles M. On a problem of L. Nirenberg. 81a:58010
- Vũ Trọng Tuấn (with Dáng Dinh Ang) A representation theorem for differentiable functions. 81b:58009

secondary classifications:

- Bruce, Joaquim Spectral synthesis in non-quasi-analytic classes of infinitely differentiable functions. (French summary) (81b:46059)
- Les ensembles d'interpolation des $A^p(D)$. (English summary) (81d:30063)
- Calvert, Bruce (with Vamanamurthy, M. K.) Local and global extrema for functions of several variables. (81c:26012)
- Crouzeix, Jean-Pierre On second-order conditions for quasiconvexity. (81h:26011)
- Franz, Monica On an analytic characterization of quasiconformality in normed spaces. (81c:30030)
- Gimblett, C. G. (with Peckover, R. S.) On the mutual interaction between rotation and magnetic fields for axisymmetric bodies. (81a:78005)
- Gomonov, E. P. Germs that are ω -determined with respect to transformations of coordinates in the preimage. (Russian) (81f:58010)
- Gaufrido, Francesco Openness theorems for immersions of real analytic spaces. (Italian. English summary) (81c:46029)
- Meise, Reinhold Nicht-Nuklearität von Räumen beliebig oft differenzierbarer Funktionen. (81m:46039)
- Peckover, R. S. See Gimblett, C. G., (81a:78005)
- Rassias, George M. On the nondegenerate critical points of differentiable functions. (81a:57034)
- Reichard, Klaus Roots of differentiable functions of one real variable. (81j:26005)
- Tamrazov, P. M. Finite difference identities and estimates of the moduli of smoothness of composite functions. (Russian) (81c:30045)
- Tougeron, Jean-Claude Fonctions composées différentiables: cas algébrique. (English summary) (81d:32015)
- Vamanamurthy, M. K. See Calvert, Bruce, (81c:26012)
- Vasil'ev, V. A. Affineness of normal forms of the μ -const strata of germs of smooth functions. (Russian) (81a:58014)
- Verbitskii, B. V. A global property of matrix-valued functions that depend on several variables. (Russian) (81a:15022)

58C27 Singularities of differentiable maps [See also 14B05, 14E15, 32Bxx, 32C40, 32C45.]

- Acquistapace, F. (with Broglia, F.; Lazzeri, F.) Strata in the deformation of real isolated singularities are in general noncontractible. 81f:58012
- Ando, Yoshifumi On differentiable mappings that do not have Thom-Boardman singularities of some form. (Japanese) 81k:58010
- Bedford, J. O. (with Gibson, Christopher G.) Regularity conditions over the first simple elliptic family. 81a:58011
- (with Gibson, Christopher G.) Regularity conditions over the second simple elliptic family. 81f:58013
- Belickii, G. R. ★ Нормальные формы, инварианты и локальные отображения. (Russian) [Normal forms, invariant and local mappings] 81h:58014
- Normal form for germs of C^m -mappings. (Russian) 81k:58011
- Broglia, F. See Acquistapace, F.; et al., 81f:58012
- Bruce, James William (with Giblin, Peter J.; Gibson, Christopher G.) Sur les caustiques par réflexion. (English summary) 81j:58019
- Camacho, César On the local structure of conformal mappings and holomorphic vector fields in C^2 . 81d:58016
- Chicarro, Eduardo Bifurcations of Whitney mappings. (Portuguese) (See 80c:00009)
- Cerner, Peter Eine zweistufige Reduktionstheorie für algebraische Gleichungen der Form $G(z, x, w, \bar{w}) = 0$. 81a:58012
- Dimca, Alexandru On the Boardman symbol of a map germ. 81f:58014
- Gervais, Jean-Jacques Critères de G -stabilité en termes de transversalité. 81a:58013
- Giblin, Peter J. See Bruce, James William; et al., 81j:58019
- Gibson, Christopher G. See Bedford, J. O., 81a:58011; Bedford, J. O., 81f:58013 and Bruce, James William; et al., 81j:58019
- Gomonov, E. P. Germs that are ω -determined with respect to transformations of coordinates in the preimage. (Russian) 81f:58010
- Gulmaries, Luiz Carlos Contact equivalence and bifurcation theory. 81m:58019
- Izumiya, Shyichi Stability of G -unfolds. 81f:58016
- Jacobsen, Leif Some remarks on invariant Whitney fields. 81k:58012
- Jinich, Klaus Contact preserving families of functions. 81j:58021
- Kuo, Tzee Char (with Lu, Yung Chen) Sufficiency of jets via stratification theory. 81h:58015
- Lazzeri, F. See Acquistapace, F.; et al., 81f:58012
- Loibel, Gilberto Francisco See da Silva Porto, Paulo Ferreira, Jr., 81d:58017
- Lu, Yung Chen See Kuo, Tzee Char, 81h:58015
- Magnus, Robert Topological equivalence in bifurcation theory. 81m:58020
- Mallet-Paret, John Generic unfoldings and normal forms of some singularities arising in the obstacle problem. 81c:58018
- Pignoni, Roberto Generic functions on a stratified space. (Italian summary) 81f:58011
- de Plessis, Andrew On the determinacy of smooth map-germs. 81h:58016
- Šurko, V. V. Smooth functions on manifolds. (Russian) 81h:58015

- da Silva Porto, Paulo Ferreira, Jr. (with Loibel, Gilberto Francisco) Relative finite determinacy and relative stability of function-germs. 81d:58017
- Suvorov, S. G. Critical sets in optimization problems with several constraints. (Russian) 81c:58013
- Turco, Bertrand Sur la réduction formelle, dans les cas non linéarisables, des jets de champs de vecteurs sur \mathbb{R}^n . (English summary) 81d:58018
- Vasil'ev, V. A. Affineness of normal forms of the μ -const strata of germs of smooth functions. (Russian) 81a:58014
- Wall, Charles T. C. A second note on symmetry of singularities. 81j:58022
- The first canonical stratum. 81k:58014
- Wan, Yieh Hsi Generic deformations of varieties. 81f:58020
- Wilson, Leslie C. Nonopenness of the set of Thom-Boardman maps. 81h:58016
- Corrections to: "Nonopenness of the set of Thom-Boardman maps". 81h:58016

secondary classifications:

- Arnol'd, V. I. Some unsolved problems of singularity theory. (Russian) (81k:32009)
- Indexes of singular points of 1-forms on manifolds with boundary, convolutions of invariants of groups generated by reflections, and singular projections of smooth surfaces. (Russian) (81c:58041)
- Audin, Michèle La classe de cobordisme duale de la singularité et des points doubles d'une application différentiable. (English summary) (81c:57031)
- La classe de cobordisme de la singularité d'un morphisme de fibres vectorielles et des points doubles d'une application. (English summary) (81k:57037)
- Bengel, G. (with Schapira, P.) Décomposition microlocale analytique des distributions. (English summary) (81k:46050)
- Bruce, James William A stratification of the space of cubic surfaces. (81c:14022)
- Dimca, Alexandru Two remarks on transversality. (81f:57032)
- Dumortier, Freddy ★ Singularities of vector fields. (81k:58050)
- (with Roussarie, Robert) Smooth linearization of germs of \mathbb{R}^2 -actions and holomorphic vector fields. (French summary) (81k:58060)
- Françoise, Jean-Pierre Singularités de champs à plans invariants. (English summary) (81d:58004)
- Freedman, Michael H. Quadruple points of 3-manifolds in S^4 . (81h:57027)
- Geramita, A. V. (with Weibel, Charles A.) Ideals with trivial conormal bundle. (81j:13009)
- Golubitsky, Martin (with Schaeffer, David G.) An analysis of imperfect bifurcation. (81c:58027)
- Hania, L. G. Geometric classification of ideals in algebras of differentiable functions. (Russian) (81k:46059)
- Iloom, G. ★ Bifurcation of maps and applications. (81h:58014)
- Jeanquartier, Pierre Transformation de Mellin et développements asymptotiques. (81g:46049)
- Kambouchner, Anne (with Trotman, David J. A.) Whitney (a)-faults which are hard to detect. (81c:58020)
- Li, Bang He Global analysis of shock waves. (Chinese) (81g:35079)
- Marzullo, Angelo (with Pascoletti, A.; Serafini, P.) Genericity and singularities in vector optimization. (81j:58034)
- Nye, J. F. Structural stability in evolving flow fields. (81a:57026)
- (with Thorndike, A. S.) Events in evolving three-dimensional vector fields. (81a:57025)
- Pascoletti, A. See Marzullo, Angelo; et al., (81j:58034)
- Roussarie, Robert See Dumortier, Freddy, (81k:58060)
- Schaeffer, David G. See Golubitsky, Martin, (81c:58027)
- Schapiro, P. See Bengel, G., (81k:46050)
- Serafini, P. See Marzullo, Angelo; et al., (81j:58034)
- Sussmann, Hector J. Single-input observability of continuous-time systems. (81f:93025)
- Suzuki, Masahiko See Yoshinaga, Etsuo, (81k:32001)
- Thorndike, A. S. See Nye, J. F., (81a:57025)
- Trotman, David J. A. Interprétations topologiques des conditions de Whitney. (81f:58005)
- Geometric versions of Whitney regularity for smooth stratifications. (81g:58020a)
- See also Kambouchner, Anne, (81g:58020b)
- Vasil'ev, V. A. Asymptotic behavior of exponential integrals in the complex domain. (Russian) (81m:41035)
- Wall, Charles T. C. A note on symmetry of singularities. (81f:32009)
- Weibel, Charles A. See Geramita, A. V., (81a:13009)
- Yoshinaga, Etsuo (with Suzuki, Masahiko) Normal forms of nondegenerate quasihomogeneous functions with inner modality < 4 . (81k:32001)

58C28 Catastrophes [See also 57R70, 58Exx.]

- Aumann, Georg Catastrophe theories. 81h:58017
- Berry, M. V. Some geometric aspects of wave motion: wavefront dislocations, diffraction catastrophes, diffractals. 81f:58012
- Cheng, Bu Shi Catastrophe theory and its application. (Chinese) 81a:58015
- Cooley, C. R. See Thorndike, A. S.; et al., 81m:58022
- Davis, Monte See Woodcock, Alexander, 81c:58021
- Gittinger, W. Catastrophe geometry in physics: a perspective. 81f:58017
- Hunt, Giles W. Imperfections and near-coincidence for semisymmetric bifurcations. 81g:58006
- (with Reay, N. A.; Yoshimura, T.) Local diffeomorphism in the bifurcational manifestations of the umbilic catastrophes. 81g:58005
- Huseyin, K. The multiple-parameter stability theory and its relation to catastrophe theory. (See 80b:00004)
- Jakubov, E. H. Solutions of Beltrami's equation with degeneration. (Russian) 81c:58019
- Kokawa, Masasumi (with Nakamura, Kabei; Oda, Moriyo) Fuzziness and catastrophe in estimation and decision processes. 81c:58020
- Magnus, Robert (with Poston, Tim) Infinite dimensions and the fold catastrophe. 81h:58018
- Markus, Lawrence Extension and interpolation of catastrophes. 81m:58021

- Milgram, G. Arthur A closer look at Thom's catastrophe theory. **81k:58015**
 Muftić, I. H. An example of a fold catastrophe in population biology. **81k:58016**
 Nakamura, Kabei See Kokawa, Masasumi; et al. **81c:58020**
 Nye, J. F. See Thomdike, A. S.; et al. **81m:58022**
 Oda, Moriya See Kokawa, Masasumi; et al. **81c:58020**
 Ponton, Tim See Magnus, Robert. **81h:58018**
 Rey, N. A. See Hunt, Giles W.; et al. **81g:58005**
 Saunders, Peter Timothy ★An introduction to catastrophe theory. **81h:58019**
 Sewell, Michael J. Elementary catastrophe theory. (See **80k:00004**)
 Smith, J. Q. Mixture catastrophes and Bayes decision theory. **81a:58016**
 Stewart, Ian Consumer guide to catastrophe theory. **81a:58017**
 Thom, René Symmetries gained and lost. **81h:58020**
 Thompson, J. M. T. Bifurcational aspects of catastrophe theory. **81h:58021**
 Thomdike, A. S. (with Cooley, C. R.; Nye, J. F.) The structure and evolution of flow fields and other vector fields. **81m:58022**
 Walk, Charles T. C. Affine cubic functions. III. The real plane. **81k:58017**
 Woodcock, Alexander (with Davis, Monte) ★Catastrophe theory. **81c:58021**
 Yoshimura, T. See Hunt, Giles W.; et al. **81g:58005**
 Zeeman, E. C. Levels of structure in catastrophe theory illustrated by applications in the social and biological sciences. (Hungarian) **81c:58022**
 Catastrophe theory. **81k:58018**

secondary classifications:

- Aizu, Kōtsiro Theorems relating to catastrophe indices and to the "fourth" checkpoint for second-order transitions. **(81i:82019)**
 Aris, Rutherford Chemical reactors and some bifurcation phenomena. **(81c:80018)**
 Bandler, W. See Schmentzer, M. E. A. **(81j:92052)**
 Bazin, M. J. (with Saunders, Peter Timothy) An application of catastrophe theory to the study of a switch in *Dictyostelium discoideum*. **(81h:92046b)**
 Beránek, J. See Krása, J.; et al. **(81h:78015)**
 Berry, M. V. Catastrophe and fractal regimes in random waves. **(81a:78011)**
 Casti, John L. ★Connectivity, complexity, and catastrophe in large-scale systems. **(81d:93007)**
 Chillingworth, David A global genericity theorem for bifurcations in variational problems. **(81g:58007)**
 Dangelmayr, G. (with Güttinger, W.; Veit, W.) Semiclassical path integrals in terms of catastrophes. **(81a:81033)**
 Catastrophes and bifurcations in variational problems. **(81d:58024)**
 Dukek, Günter The 180° rule at triple points: a consideration based on a modified butterfly model. **(81h:82019)**
 Güttinger, W. See Dangelmayr, G.; et al. **(81a:81033)**
 Haken, H. Synergetics and a new approach to bifurcation theory. **(81h:58046)**
 Hansen, J. S. See Hul, D. **(81g:73061)**
 Hul, D. (with Hansen, J. S.) Two-mode buckling of an elastically supported plate and its relation to catastrophe theory. **(81g:73061)**
 Källén, E. (with Wiin-Nielsen, A. C.) Nonlinear, low order interactions. (Russian summary) **(81k:86006)**
 Krása, J. (with Pekárek, L.; Beránek, J.) A cusp catastrophe model for a discontinuous wave pattern observed with ionization waves. **(81h:78015)**
 Lanzara, G. F. Stress and morphogenesis in a complex social organization modeling the education system. **(81m:92059)**
 Li, H. C. A model of "indecisiveness" in consumer behavior—an economic application of catastrophe theory. (See **81i:90005**)
 Magnus, Robert A splitting lemma for nonreflexive Banach spaces. **(81m:58025)**
 (Murgolo, F. P.) See Lanzara, G. F. **(81m:92059)**
 Panayiotopoulos, J.-C. Catastrophe transportation programming. **(81h:90094)**
 Pekárek, L. See Krása, J.; et al. **(81h:78015)**
 Porter, D. See Sewell, Michael J. **(81j:76003)**
 Saunders, Peter Timothy See Bazin, M. J. **(81h:92046b)**
 Schmentzer, M. E. A. (with Bandler, W.) Hi & low-in & out: approaches to social status. **(81j:92052)**
 Sewell, Michael J. Degenerate duality, catastrophes and saddle functionals. **(81e:58020)**
 (with Porter, D.) Constitutive surfaces in fluid mechanics. **(81j:76003)**
 Thom, René Stable defects in ordered media. **(81j:82007)**
 Veit, W. See Dangelmayr, G.; et al. **(81a:81033)**
 v. Westenholz, Cornelius On the mass spectrum of Higgs particles. **(81h:81056)**
 Wiin-Nielsen, A. C. See Källén, E. **(81k:86006)**
 Wright, F. J. Wavefront dislocations and their analysis using catastrophe theory. **(81a:78012)**

58C30 Fixed point theorems [See also 47H10.]

- Borisovič, Ju. G. Topology and nonlinear functional analysis. (Russian) **81f:58013**
 (with Gliklikh, Ju. E.) Fixed points of mappings of Banach manifolds and some applications. **81e:58017**
 Gliklikh, Ju. E. See Borisovič, Ju. G. **81e:58017**
 Hildrov, Ju. È. The rotation of pseudomonotone vector fields and Euler characteristics. (Russian) **81h:58022**

secondary classifications:

- Aharony, Amnon See Gefen, Yuval; et al. **(81g:82020)**
 Akyildiz, Ersan Vector fields and equivariant bundles. **(81c:32052)**
 Bros, Jacques Integral relations in complex space and the global analytic and monodromic structure of Green's functions in quantum field theory: some general ideas and recent results. **(81g:81083)**
 Donati, Flavio (with Matzeu, Michele) On some evolution problems of implicit type. (Italian summary) **(81i:47063)**
 Dzedzej, Z. Degree of coincidence in locally convex spaces. **(81m:55002)**
 Garcia, C. B. (with Gould, F. J.) Relations between several path following algorithms

- and local and global Newton methods. **(81m:65073)**
 Gefen, Yuval (with Mandelbrot, Benoit B.; Aharony, Amnon) Critical phenomena on fractal lattices. **(81g:82020)**
 Gould, F. J. See Garcia, C. B. **(81m:65073)**
 Ha, Chung Wei Minimax and fixed point theorems. **(81i:47058)**
 Hahn, S. Homöomorphieaussagen für k -verdichtende Vektorfelder. **(81m:47077)**
 Hildrov, Ju. È. A class of continuous vector fields. (Russian) **(81h:47079)**
 Hsu, C. S. Theory of index for dynamical systems of order higher than two. **(81m:58065)**
 Husain, S. A. (with Sehgal, V. M.) A remark on a fixed point theorem of Caristi. **(81h:54053)**
 Mandelbrot, Benoit B. See Gefen, Yuval; et al. **(81g:82020)**
 Matzeu, Michele See Donati, Flavio. **(81i:47063)**
 Miniini, Michele About the solvability of some nonlinear equations with a contractivity conditions. (Italian summary) **(81h:47080)**
 Nirenberg, Louis The use of topological, functional analytic, and variational methods in nonlinear problems. **(81m:58026)**
 Percell, Peter B. Note on a global homotopy. **(81m:65075)**
 Schöneberg, Raimund A degree theory for semicondensing vectorfields in infinite-dimensional Banach spaces and applications. **(81h:47066)**
 Sehgal, V. M. See Husain, S. A. **(81h:54053)**
 Spector, Scott J. On uniqueness in finite elasticity with general loading. (French summary) **(81g:73059)**
 Todd, Michael J. (with Wright, Alden H.) A variable-dimension simplicial algorithm for antipodal fixed-point theorems. **(81m:65076)**
 Wright, Alden H. See Todd, Michael J. **(81m:65076)**

58C35 Integration on manifolds; measures on manifolds [See also 28Cxx.]

secondary classifications:

- Dorfman, I. Ja. The rotation and divergence of vector fields on a Hilbert space. (Russian) **(81h:46045)**
 Lascar, Bernard Une classe d'opérateurs elliptiques du second ordre sur un espace de Hilbert. **(81i:47052)**
 Weinstein, Alan The order and symbol of a distribution. **(81g:58037)**

58C40 Spectral theory; eigenvalue problems

- Borisovič, Ju. G. (with Svjagin, V. G.; Mänz, P.) Nichtlineare Fredholm-Operatoren. Abbildungsgrad und Anwendungen auf nichtlineare Eigenwertprobleme. **81d:58019**
 Fichera, Gaetano Can we find out the topological shape of a planet from its atlas? **81m:58023**
 Mänz, P. See Borisovič, Ju. G.; et al. **81d:58019**
 Svjagin, V. G. See Borisovič, Ju. G.; et al. **81d:58019**
 secondary classifications:
 Bahtin, I. A. (with Nguen Bik Zui) Existence of positive solutions for nonlinear equations depending on a parameter. (Russian) **(81m:47083)**
 Bergère, M. C. Asymptotic behaviour of Feynman integrals. **(81h:81029)**
 Fadeev, N. P. Properties of roots of some polynomials depending on a parameter. (Russian) **(81c:33013)**
 Kōzaki, Masanori The spectrum of Kaehler manifolds. **(81f:58042)**
 Nguen Bik Zui See Bahtin, I. A. **(81m:47083)**
 Rodrigues, Paulo R. (with Roussarie, Robert) Sur l'existence de séparatrices pour les germes de difféomorphismes du plan. (English summary) **(81e:58045)**
 Roussarie, Robert See Rodrigues, Paulo R. **(81e:58045)**
 Unell, Philip Myles Selfadjointness of certain second order differential operators on Riemannian manifolds. **(81g:35021)**

58C99 None of the above, but in this section

- Ziemian, Bogdan On G -invariant distributions. **81h:58023**

secondary classifications:

- Kozak, John J. Phase transitions as a problem in bifurcation theory. **(81a:82023)**
 Matagne, R. A propos des pseudo-polynômes. **(81j:26017)**
 Michelucci, M. L. See Reas, P. G.; et al. **(81h:92007)**
 Papuzza, F. P. See Reas, P. G.; et al. **(81h:92007)**
 Reas, P. G. (with Michelucci, M. L.; Papuzza, F. P.) A differential model concerning morphogenetic processes. (Italian) **(81h:92007)**
 Sattinger, David H. Bifurcation and symmetry breaking in applied mathematics. **(81i:58020)**

58Dxx Spaces and manifolds of mappings (including nonlinear versions of 46Exx)

secondary classifications:

- Hatcher, A. E. Linearization in 3-dimensional topology. **(81g:57024)**

58D05 Groups of diffeomorphisms and homeomorphisms as manifolds [See also 22E65, 57Q05.]

- Banyaga, Augustin (with Pulido, Javier) On the group of contact diffeomorphisms of R^{2n+1} . **81m:58024**
 Lukacki, A. M. Construction of finite systems of generators in Lie algebras of vector fields and diffeomorphism groups of compact manifolds. (Russian) **81h:58034**

- McDuff, Dusa On the group of volume-preserving diffeomorphisms of \mathbb{R}^n . 81k:58019
 Pulido, Javier See Banyaga, Augustin, 81m:58024
 Ravaska, Timo Differential geometry of C^∞ helices in Hilbert space. 81j:58023
 Smolencev, N. K. The Maupertuis principle. (Russian) 81e:58018
 Zarrow, Robert A counting function for orientation reversing maps. 81f:58014

secondary classifications:

- Bargheles, Dan The rational homotopy groups of $\text{Diff}(M)$ and $\text{Homeo}(M^n)$ in the stability range. (81d:57029)
 Fukui, Kazuhiko Homologies of the group $\text{Diff}^m(\mathbb{R}^n, 0)$ and its subgroups. (81m:57035)
 Ismagilov, R. S. Unitary representations of the group of measure-preserving diffeomorphisms. (Russian) (81g:22025)
 Joshi, N. E. See Saraykar, R. V., (81k:35135)
 Mässon, Bengt Cosmic time functions in certain Robinson-Trautman space-times. (81c:83014)
 Maxim-Răileanu, Liliana Manifolds of symplectic structures with prescribed volume element. (81h:58003)
 McDuff, Dusa The homology of some groups of diffeomorphisms. (81j:57018)
 Saraykar, R. V. (with Joshi, N. E.) Viscous fluid flows over \mathbb{R}^n with asymptotic conditions. (81k:35135)
 Yamamoto, Sadayuki Groups of C^∞ -diffeomorphisms and differentiation in locally convex spaces. (81c:58023)

58D07 Groups and semigroups of nonlinear operators [See also 17B65, 47Dxx, 47H20.]

58D10 Spaces of imbeddings and immersions

secondary classifications:

- Ando, Yoshifumi On differentiable mappings that do not have Thom-Boardman singularities of some form. (Japanese) (81k:58010)
 Asperti, Antonio Carlos Generic differential geometry. (Portuguese) (81c:53001)
 Cherrier, Pascal Une inégalité de Sobolev sur les variétés riemanniennes. (English summary) (81a:58055)
 Pierce, J. F. (with Whitman, A. P.) Topological properties of the manifolds of configurations for several simple deformable bodies. (81g:73058)
 Whitman, A. P. See Pierce, J. F., (81g:73058)

58D15 Manifolds of mappings [See also 54C35.]

- Craioveanu, M. A reflection property for manifolds of sections of fiber bundles. (Romanian summary) 81k:58020
 Franks, John Manifolds of C^r mappings and applications to differentiable dynamical systems. 81a:58018
 Kovarik, Zdeněk V. Manifolds of linear involutions. 81b:58010
 Papughiuc, Neculai Applications du calcul différentiel dans les espaces localement convexes à l'analyse globale. 81d:58020
 Yamamoto, Sadayuki Groups of C^∞ -diffeomorphisms and differentiation in locally convex spaces. 81c:58023

secondary classifications:

- Aubin, Jean-Pierre ★Applied abstract analysis. (81e:54001)
 Bleeker, David D. Critical mappings of Riemannian manifolds. (81g:58009)
 Cornet, Bernard See Aubin, Jean-Pierre, (81e:54001)
 Foster, M. J. A composition theorem for manifolds of fibre maps. (81d:58014)
 Gähler, W. Convergence structures and differential calculus. (81k:58008)
 Khurana, Surjit Singh Topologies on spaces of vector-valued continuous functions. (81f:46053)
 Labrousse, Carole See Aubin, Jean-Pierre, (81e:54001)
 Mielke, M. V. Differentiable decompositions of manifolds into totally C^∞ -path disconnected subsets. (81a:57023)
 Moulin, Hervé See Aubin, Jean-Pierre, (81e:54001)

58D17 Manifolds of metrics (esp. Riemannian)

secondary classifications:

- Christodoulou, Demetrios (with Francaviglia, Mauro) Remarks about the thin sandwich conjecture. (81k:83043)
 Francaviglia, Mauro See Christodoulou, Demetrios, (81k:83043)
 Koiso, Norihito Nondeformability of Einstein metrics. (81h:53046)
 Kuwabara, Ritshi On isospectral deformations of Riemannian metrics. (81g:58040)
 Millman, Richard S. (with Parker, George D.) Denseness of bounded and unbounded Riemannian metrics. (81f:53033)
 Parker, George D. See Millman, Richard S., (81f:53033)

58D20 Measures (Gaussian, cylindrical, etc.) on manifolds of maps [See 28Cxx.]

Elworthy, K. D. Differential invariants of measures on Banach spaces. 81a:58019

secondary classifications:

- Dekker, H. Path integrals for diffusion processes in Riemannian spaces. (81h:82026)
 Fujiwara, Daisuke On a nature of convergence of some Feynman path integrals. I. (81k:81028a)
 On a nature of convergence of some Feynman path integrals. II. (81k:81028b)
 Johnson, G. W. (with Skoug, D. L.) Scale-invariant measurability in Wiener space. (81h:28016)

- Langouche, F. (with Roekaerts, D.; Tiraepgui, E.) Comment on functional integration and the Onsager-Machup Lagrangian in Riemannian geometries. (81h:81031)
 Marinov, M. S. (with Terent'ev, M. V.) Dynamics on the group manifold and path integral. (81e:81049)

Path integrals in quantum theory: an outlook of basic concepts. (81e:81050)

- Roekaerts, D. See Langouche, F.; et al., (81h:81031)
 Skoug, D. L. See Johnson, G. W., (81h:28016)
 Terent'ev, M. V. See Marinov, M. S., (81e:81049)
 Tiraepgui, E. See Langouche, F.; et al., (81h:81031)

58D25 Equations in function spaces; evolution equations [See also 34Gxx, 35K22, 35R15.]

- Choquet-Bruhat, Yvonne (with Christodoulou, Demetrios; Francaviglia, Mauro) On the wave equation in curved spacetime. 81j:58024
 Christodoulou, Demetrios See Choquet-Bruhat, Yvonne; et al., 81j:58024
 Francaviglia, Mauro See Choquet-Bruhat, Yvonne; et al., 81j:58024
 Lascar, Bernard Équations aux dérivées partielles en dimension infinie. 81d:58021
 Rajta, Tudor On the smoothness of the time t -map of the KdV equation and the bifurcation of the eigenvalues of Hill's operator. 81j:58025
 Schoen, Richard (with Yau, Shing Tung) Positivity of the total mass of a general space-time. 81c:58024
 Tolen, Josephine Problème de Cauchy sur deux hypersurfaces caractéristiques scées. (English summary) 81i:58018
 Yau, Shing Tung See Schoen, Richard, 81c:58024

secondary classifications:

- Aliev, I. A. Solvability "in the large" of the Cauchy problem for quasilinear evolutionary equations and hyperbolic partial differential equations. (Russian) (81c:34053)
 Ashtekar, Abhay (with Schmidt, B. G.) Null infinity and Killing fields. (81e:83018)
 Baakal, N. S. Quantization of superparametrized monopoles. (81i:81097)
 Babenko, K. I. On properties of steady viscous incompressible fluid flows. (81e:76023)
 Christodoulou, Demetrios Extension de la solution du problème de Cauchy d'équations quasi linéaires hyperboliques. (English summary) (81e:35006)
 Ckillo, T.-N. M. Some stochastic differential equations that are close to exactly integrable equations. (Russian) (81i:60058)
 Daleckiĭ, Ju. L. (with Šeralev, N. K.) First-order equations for measures and chains in an infinite-dimensional space. (Russian) (81k:35157)
 Funaki, Tadahisa See Inoue, Atsushi, (81m:35115)
 Geroch, Robert (with Xanthopoulos, Basilis C.) Asymptotic simplicity is stable. (81k:83020)
 Haggman, B. C. (with Horndeski, Gregory Walter; Mess, G.) Properties of a covering space defined by Hawking. (81k:83036)
 Hájček, Petr Observables for quantum fields on curved background. (81j:81079)
 Horndeski, Gregory Walter Characteristic surfaces and characteristic initial data for the generalized Einstein-Maxwell field equations. (81e:83031a)
 See also Haggman, B. C.; et al., (81k:83036)
 Inoue, Atsushi (with Funaki, Tadahisa) On a new derivation of the Navier-Stokes equation. (81m:35115)
 Komeč, A. I. See Višik, M. I., (81a:35087)
 Krylov, N. V. (with Rozovskii, B. L.) Stochastic evolution equations. (Russian) (81m:60116)
 Kuo, Hui Hsiung Uhlenbeck-Ornstein process on a Riemann-Wiener manifold. (81h:60106)
 Lacaze, Jacques Feuilletage d'une variété lorentzienne par des hypersurfaces spatiales à courbure moyenne constante. (English summary) (81g:53050)
 Lobanov, S. G. Solvability of linear ordinary differential equations in locally convex spaces. (Russian. English summary) (81g:34079)
 Marinov, M. S. Path integrals in quantum theory: an outlook of basic concepts. (81e:81050)
 Mayer, Dieter H. (with Viswanathan, K. S.) On the vacuum structure of an $SU(2)$ Yang-Mills theory. (81g:81071)
 Mess, G. See Haggman, B. C.; et al., (81k:83036)
 Moncrief, Vincent The branching of solutions of Einstein's equations. (81i:83013)
 O Murchadha, Niall Killing vectors and maximal slicing in general relativity. (81e:83025)
 Ørsted, Bent A model for an interacting quantum field. (81c:81038)
 Ray, Dipankar Gödel-like cosmological solutions. (81m:83049)
 Rozovskii, B. L. See Krylov, N. V., (81m:60116)
 Sanekata, Nobuhiko Convergence of approximate solutions to quasilinear evolution equations in Banach spaces. (81c:47065)
 Schmidt, B. G. See Ashtekar, Abhay, (81e:83018)
 Šeralev, N. K. See Daleckiĭ, Ju. L., (81k:35157)
 Shigemoto, K. Yang-Mills theory without gauge fixing. (Italian summary) (81j:81044)
 Sommers, Paul Space spinors. (81k:81050)
 Stachel, John The anholonomic Cauchy problem in general relativity. (81j:83033)
 Tafel, Jacek Some solutions of the Einstein-Yang-Mills equations. (81k:83037)
 Taub, A. H. Space-times with distribution-valued curvature tensors. (81j:83014)
 Višik, M. I. (with Komeč, A. I.) Solvability of the Cauchy problem for the Hopf equation that corresponds to the nonlinear hyperbolic equation. (Russian) (81a:35087)
 Viswanathan, K. S. See Mayer, Dieter H., (81g:81071)
 Xanthopoulos, Basilis C. See Geroch, Robert, (81k:83020)

58D30 Applications (in quantum mechanics (Feynman path integrals), relativity, fluid dynamics, etc.)

- Nowakowski, Jerzy (with Trautman, Andrzej) Natural connections on Stiefel bundles are sourceless gauge fields. 81a:58020
 Trautman, Andrzej See Nowakowski, Jerzy, 81a:58020

secondary classifications:

- Ashtekar, Abhay** (with Streubel, Michael) On angular momentum of stationary gravitating systems. (81d:83024)
- Chodos, Alan** (with Moncrief, Vincent) Geometrical gauge conditions in Yang-Mills theory: some nonexistence results. (81d:81069)
- Datta, Bidyut Kumar** Initial value problems in general relativity and their singularities. (81d:83019)
- Dekker, H.** Path integrals for diffusion processes in Riemannian spaces. (81h:82026)
- Eguchi, Teiichi** (with Hanson, Andrew J.) Gravitational instantons. (81d:83032)
- Gotô, Tetsuo** See **Naka, Sigefumi**, (81d:81042)
- Hanson, Andrew J.** See **Eguchi, Teiichi**, (81d:83032)
- Isham, C. J.** Quantum field theory in curved space-times, a general mathematical framework. (81d:81037)
- Kaplanoglu, Sinan** Weakly canonical transformations and the path integral quantization. (81m:81026)
- Lake, Kayll** (with Nelson, Lorne A.) Gravitational bounce. (81h:83043)
- Marinov, M. S.** (with Terent'ev, M. V.) Dynamics on the group manifold and path integral. (81e:81049)
- Martellini, Maurizio** Quantization about Kerr-Schild's gravitational fields. (Italian and Russian summaries) (81a:83017)
- Mizrahi, Maurice M.** Correspondence rules and path integrals. (81j:81018)
- Moncrief, Vincent** See **Chodos, Alan**, (81d:81069)
- Naka, Sigefumi** (with Gotô, Tetsuo) A method of quantization of constrained dynamical systems. (81d:81042)
- Nelson, Lorne A.** See **Lake, Kayll**, (81h:83043)
- Pedroza, A. C.** (with Vianna, J. D. M.) On the Jordan algebra and the symmetric formulation of classical mechanics. (81h:70009)
- Penrose, Roger** Null hypersurface initial data for classical fields of arbitrary spin and for general relativity. (81d:83044)
- Reinhardt, H.** Semiclassical theory of large amplitude collective excitations. (81i:81105)
- Stephan, Hans** ★ Allgemeine Relativitätstheorie. (German) [General theory of relativity] (81d:83001)
- Streubel, Michael** See **Ashtekar, Abhay**, (81d:83024)
- Terent'ev, M. V.** See **Marinov, M. S.**, (81e:81049)
- Trutman, Andrzej** On gauge transformations and symmetries. (Russian summary) (81a:81059)
- Vianna, J. D. M.** See **Pedroza, A. C.**, (81h:70009)
- York, James W., Jr.** Kinematics and dynamics of general relativity. (See 81j:83017)

58D99 None of the above, but in this section

secondary classifications:

McDuff, Dana On the classifying spaces of discrete monoids. (81d:55020)

58Exx Variational problems in infinite-dimensional spaces

58E05 Abstract critical point theory (Morse theory, Ljusternik-Schnirelman (Snirel'man) theory, etc.)

- Aubin, Jean-Pierre** (with Ekeland, Ivar) Second-order evolution equations associated with convex Hamiltonians. 81j:58026
- Benci, Vieri** Some critical point theorems and applications. 81f:58015
- Castro, Alfonso** (with Lazer, Alan C.) Critical point theory and the number of solutions of a nonlinear Dirichlet problem. 81d:58022
- Cerami, Giovanni** An existence criterion for the critical points on unbounded manifolds. (Italian) 81k:58021
- Ekeland, Ivar** See **Aubin, Jean-Pierre**, 81j:58026
- Kratovich, Alexander** (with Nečas, Jindřich) Gradient methods for the construction of Ljusternik-Schnirelman critical values. (French summary) 81j:58019
- Lazer, Alan C.** See **Castro, Alfonso**, 81d:58022
- Magnus, Robert** A splitting lemma for nonreflexive Banach spaces. 81m:58025
- Malivert, Christian** (with Penot, Jean-Paul; Théra, Michel) Minimisation d'une fonction régulière sur un fermé non régulier et non convexe d'un espace de Hilbert. (English summary) 81e:58019
- Marino, Antonio** (with Scolozzi, Donato) Homological properties of the sublevels of some even functions on Hilbert spaces. (Italian. English summary) 81e:58025
- Nečas, Jindřich** See **Kratovich, Alexander**, 81j:58019
- Nirenberg, Louis** The use of topological, functional analytic, and variational methods in nonlinear problems. 81m:58026
- Palais, Richard S.** The principle of symmetric criticality. 81e:58026
- Penot, Jean-Paul** See **Malivert, Christian**; et al., 81e:58019
- Scolozzi, Donato** See **Marino, Antonio**, 81e:58025
- Sewell, Michael J.** Degenerate duality, catastrophes and saddle functionals. 81e:58020
- Shelton, Robert** Critical points of harmonic functions on domains in \mathbb{R}^3 . 81h:58022
- Suvorov, S. G.** Ljusternik-Snirel'man theory. (Russian) 81j:58027
- Théra, Michel** See **Malivert, Christian**; et al., 81e:58019
- Zeldner, Eberhard** Lectures on Ljusternik-Schnirelman theory for indefinite nonlinear eigenvalue problems and its applications. 81h:58025a
- The Ljusternik-Schnirelman theory for indefinite and not necessarily odd nonlinear operators and its applications. 81h:58025b

secondary classifications:

- Bates, Peter W.** (with Ekeland, Ivar) A saddle-point theorem. (81h:49006)
- Berestycki, Henri** Remarques sur le nombre de solutions de certains problèmes semi-linéaires elliptiques. (English summary) (81e:35046)
- Berger, M. S.** (with Fraenkel, L. E.) Nonlinear desingularization in certain free-boundary problems. (81m:35055)

- Brézis, Haim** (with Coron, Jean-Michel; Nirenberg, Louis) Free vibrations for a nonlinear wave equation and a theorem of P. Rabinowitz. (81k:35013)
- Chow, Shih Nee** Periodic solutions of nonlinear autonomous hyperbolic equation. (81m:35018)
- Coron, Jean-Michel** See **Brézis, Haim**; et al., (81k:35013)
- Dang Dinh Ang** See **Vũ Trọng Tuấn**, (81b:58009)
- Ekeland, Ivar** (with Lasry, Jean-Michel) On the number of periodic trajectories for a Hamiltonian flow on a convex energy surface. (81m:58032)
- See also **Bates, Peter W.**, (81h:49006)
- Fraenkel, L. E.** See **Berger, M. S.**, (81m:35055)
- Hess, Peter** On nontrivial solutions of a nonlinear elliptic boundary value problem. (81i:35071)
- Hidrov, Ju. Ė.** The rotation of pseudomonotone vector fields and Euler characteristic. (Russian) (81h:58022)
- Hiriart-Urruty, Jean-Baptiste** Mean value theorems in nonsmooth analysis. (81i:58011)
- Kikuchi, Norio** (with Mitsuoka, Noriko) On nonlinear Euler equations. (81k:35045)
- Lasry, Jean-Michel** See **Ekeland, Ivar**, (81m:58032)
- Mitsuoka, Noriko** See **Kikuchi, Norio**, (81k:35045)
- Nahm, W.** Virtual stationary points. (81j:81042)
- Nirenberg, Louis** See **Brézis, Haim**; et al., (81k:35013)
- Okada, Kenkichi** Phase diagram and critical point. (81j:82015)
- Pohozhaev, S. I.** Periodic solutions of some nonlinear systems of ordinary differential equations. (Russian) (81c:34038)
- Rabinowitz, Paul H.** Free vibrations for a semilinear wave equation. (81i:35109)
- Štědrý, Milan** See **Vejrova, O.**, (81g:35083)
- Stevens, Robert R.** Periodic solutions of $x'' + g(t, x) = 0$. (81d:34034)
- Suvorov, S. G.** Critical sets in optimization problems with several constraints. (Russian) (81k:58013)
- Tanyi, G. E.** On the critical points of the classical elastic energy functional. (81g:7302)
- Thews, Klaus** Nontrivial solutions of elliptic equations at resonance. (81e:35054)
- Vejrova, O.** (with Štědrý, Milan) Periodic solutions of a weakly nonlinear autonomous wave equation. (Russian summary) (81g:35083)
- Vũ Trọng Tuấn** (with Dang Dinh Ang) A representation theorem for differentiable functions. (81b:58009)

58E07 Abstract bifurcation theory

- Alexander, James C.** (with Fitzpatrick, P. M.) The homotopy of certain spaces of nonlinear operators, and its relation to global bifurcation of the fixed points of parametrized condensing operators. 81k:58023
- Calculating bifurcation invariants as elements of the homotopy of the general linear group. II. 81f:58016
- (with Fitzpatrick, P. M.) Galerkin approximations in several parameter bifurcation problems. 81k:58024
- Azmov, T. Š.** Branching of the solutions of nonlinear operator equations with various parameters. (Russian) (See 80d:00021)
- Beirão da Veiga, Hugo** Differentiability for Green's operators of variational inequalities and applications to the determination of bifurcation points. 81b:58011
- Berger, M. S.** (with Fraenkel, L. E.) On nonlinear desingularization. 81b:58012
- Chillingworth, David** A global genericity theorem for bifurcations in variational problems. 81g:58007
- Crandall, Michael G.** (with Rabinowitz, Paul H.) Mathematical theory of bifurcation. 81j:58028
- Crown-Scanlon, Jane** A general bifurcation theorem. 81d:58023
- Dancer, E. N.** An implicit function theorem with symmetries and its application to nonlinear eigenvalue equations. 81e:58021
- Dangelmayr, G.** Catastrophes and bifurcations in variational problems. 81d:58024
- Decker, Dwight W.** (with Keller, Herbert B.) Solution branching—a constructive technique. 81j:58029
- (with Keller, Herbert B.) Multiple limit point bifurcation. 81k:58025
- De Oliveira, José Carlos F.** See **Hale, Jack K.**, 81h:58026
- Fitzpatrick, P. M.** See **Alexander, James C.**, 81k:58023 and **Alexander, James C.**, 81k:58024
- Fraenkel, L. E.** See **Berger, M. S.**, 81b:58012
- Golubitsky, Martin** (with Schaeffer, David G.) An analysis of imperfect bifurcation. 81e:58027
- (with Schaeffer, David G.) A qualitative approach to steady-state bifurcation theory. 81k:58026
- Hale, Jack K.** Topics in local bifurcation theory. 81b:58013
- (with Taboas, P.) On a bifurcation problem. 81d:58025
- (with De Oliveira, José Carlos F.) Hopf bifurcation for functional equations. 81h:58026
- Hoyle, Stephen L.** Local solution manifolds for nonlinear equations. 81j:58030
- Iooss, G.** ★ Bifurcation of maps and applications. 81h:58014
- Keller, Herbert B.** See **Decker, Dwight W.**, 81j:58029 and **Decker, Dwight W.**, 81k:58025
- Mallet-Paret, John** Generic bifurcation in the obstacle problem. 81d:58026
- Marsden, Jerrold E.** On the geometry of the Liapunov-Schmidt procedure. 81e:58023
- (Olver, Peter J.) See **Sattinger, David H.**, 81e:58022
- Rabinowitz, Paul H.** See **Crandall, Michael G.**, 81j:58028
- Sattinger, David H.** ★ Group-theoretic methods in bifurcation theory. 81e:58022
- Spontaneous symmetry breaking in nonlinear problems. 81e:58029
- Selection mechanisms in symmetry breaking phenomena. 81e:58030
- Bifurcation and symmetry breaking in applied mathematics. 81i:58020
- Schaeffer, David G.** See **Golubitsky, Martin**, 81e:58027 and **Golubitsky, Martin**, 81k:58026
- Schmitt, Klaus** Bifurcation results for equations with nondifferentiable nonlinearities. 81j:58031
- Shearer, M.** One-parameter perturbations of bifurcation from a simple eigenvalue. 81h:58027

Secondary bifurcation near a double eigenvalue. 81c:58031

Sidorov, N. A. The choice of initial approximations of the solutions of regularized equations in bifurcation theory. (Russian) (See 80i:00004)

Stuart, C. A. An introduction to bifurcation theory based on differential calculus. 81j:58032

A variational method for bifurcation problems when the linearization has no eigenvalues. 81c:58023

Tiboon, P. See Hale, Jack K., 81d:58025

Vanderbauwhede, A. L. An abstract setting for the study of the Hopf bifurcation. 81j:58033

secondary classifications:

Ambrosetti, Antonio (with Hess, Peter) Positive solutions of asymptotically linear elliptic eigenvalue problems. (81j:35092)

Antman, Stuart S. Geometric aspects of global bifurcation in nonlinear elasticity. (81j:73049)

Nonlinear eigenvalue problems for the whirling of heavy elastic strings.

(81d:73018)

Bahri, Abbas Résolution générique d'une équation semi-linéaire. (English summary) (81j:58044)

(Bardos, Claude) See Bifurcation and nonlinear eigenvalue problems. (81c:35001)

Bolley, Catherine Multiple solutions of a bifurcation problem. (81j:35012)

Constantinescu, Dan H. The Wigner transition as a bifurcation. (81m:83017)

Cowan, J. D. See Ermentrout, G. B., (81k:92012)

Dukek, Günter The 180° rule at triple points: a consideration based on a modified butterfly model. (81h:82019)

Ermentrout, G. B. (with Cowan, J. D.) Secondary bifurcation in neuronal nets. (81k:92012)

Golubitsky, Martin See Shaeffer, David G., (81k:35019)

Gutierrez, Luis Carlos Contact equivalence and bifurcation theory. (81m:58019)

Gupta, J. R. On the stability of generalized hydromagnetic convection. (Turkish summary) (81j:76036)

Haken, H. (with Klenk, H.) A new approach to bifurcation theory with numerical applications to convection instabilities in plasmas. (81k:76025)

Hale, Jack K. Remarks on bifurcation theory in differential equations. (81j:34050)

Hansen, J. S. See Hul, D., (81g:73061)

Haughton, D. M. (with Ogden, R. W.) Bifurcation of rotating thick-walled elastic tubes. (81j:73050)

(with Ogden, R. W.) Bifurcation of finitely deformed rotating elastic cylinders. (81k:73016)

Hess, Peter See Ambrosetti, Antonio, (81j:35092)

Hoyle, Stephen L. Bifurcation for ordinary differential equations with a zero eigenvalue. (81k:34033)

Hul, D. (with Hansen, J. S.) Two-mode buckling of an elastically supported plate and its relation to catastrophe theory. (81g:73061)

Joseph, Daniel D. Direct and repeated bifurcation into turbulence. (81e:76042)

Keller, Herbert B. Numerical solution of bifurcation problems in nonlinear eigenvalue problems. (Russian) (81d:47039)

Kirchgässner, K. Exotische Lösungen des Bénardischen Problems. (English summary) (81d:76048)

Klenk, H. See Haken, H., (81k:76025)

Knightly, George H. (with Sather, D.) Buckled states of a spherical shell under uniform external pressure. (81f:73021)

(Lamy, Jean-Michel) See Bifurcation and nonlinear eigenvalue problems. (81c:35001)

Lazer, Alan C. (with McKenna, P. J.) On multiple solutions of a nonlinear Dirichlet problem. (81k:35062)

Li, Shu Jie Positive solutions of nonconvex nonlinear eigenvalue problems. (Chinese) (81m:47087)

Logvinov, B. V. The problem of airfoil divergence as an example of the theory of branching of solutions of nonlinear equations with two small parameters. (Russian) (81k:73033)

Magnus, Robert (with Poston, Tim) Infinite dimensions and the fold catastrophe. (81h:58018)

A splitting lemma for nonreflexive Banach spaces. (81m:58025)

Malec, Edward Bifurcation solutions of cylindrically symmetric Yang-Mills equations. (81h:81074)

Mallet-Paret, John Generic unfoldings and normal forms of some singularities arising in the obstacle problem. (81c:58018)

McKenna, P. J. See Lazer, Alan C., (81k:35062)

Mininni, Michele About the solvability of some nonlinear equations with α -contractivity conditions. (Italian summary) (81d:47089)

Moscariel, Vincent The branching of solutions of Einstein's equations. (81i:83013)

Moore, Gerald (with Spence, Alastair) The calculation of turning points of nonlinear equations. (81i:65047)

Nagle, R. Kent (with Singkofer, Karen) Equations with unbounded nonlinearities. (81m:34063)

Nicolls, G. (with Turner, J. W.) Effect of fluctuations on bifurcation phenomena. (81f:80014)

Ogden, R. W. See Haughton, D. M., (81j:73050) and Haughton, D. M., (81k:73016)

Papanicolaou, George C. Stochastically perturbed bifurcation. (81m:60118)

Pomeau, Yves (with Zaleski, Stéphane) Sélection du nombre d'onde dans les structures cellulaires convectives. (English summary) (81k:76027)

Poston, Tim See Magnus, Robert, (81h:58018)

Rădulescu, Marius (with Rădulescu, Sorin) Global inversion theorems and applications to differential equations. (81m:58018)

Rădulescu, Sorin See Rădulescu, Marius, (81m:58018)

Reeken, Michael Rotating chain fixed at two points vertically above each other. (81k:34019)

Sather, D. See Knightly, George H., (81f:73021)

Shaeffer, David G. Qualitative analysis of a model for boundary effects in the Taylor

problem. (81c:35007)

(Schatzman, Michelle) See Bifurcation and nonlinear eigenvalue problems. (81c:35001)

Shaeffer, David G. (with Golubitsky, Martin) Boundary conditions and mode jumping in the buckling of a rectangular plate. (81k:35019)

Sidorov, N. A. Integral systems of branching of degenerate differential equations. (Russian) (81f:34065)

The method of continuation with respect to the parameter in the neighborhood of a branch point. (Russian) (81g:65066)

Singkofer, Karen See Nagle, R. Kent, (81m:34063)

Spence, Alastair See Moore, Gerald, (81i:65047)

Thompson, J. M. T. Bifurcational aspects of catastrophe theory. (81h:58021)

Turner, J. W. See Nicolls, G., (81f:80014)

Véron, Laurent Effets régularisants de semi-groupes non linéaires dans des espaces de Banach. (English summary) (81k:47066)

Voss, Heinrich (with Werner, Bodo) Ein Quotienteneinschließungssatz für den kritischen Parameter nichtlinearer Randwertaufgaben. (81i:65085)

Weber, Helmut Numerische Behandlung von Verzweigungsproblemen bei gewöhnlichen Randwertaufgaben. (English summary) (81c:65042)

Werner, Bodo See Voss, Heinrich, (81i:65085)

Zaleski, Stéphane See Pomeau, Yves, (81k:76027)

Bifurcation and nonlinear eigenvalue problems ★ Bifurcation and nonlinear eigenvalue problems. (81c:35001)

Eigenvalue problems ★ Bifurcation and nonlinear eigenvalue problems. (81c:35001)

Nonlinear eigenvalue problems ★ Bifurcation and nonlinear eigenvalue problems. (81c:35001)

Session:

Bifurcation and Nonlinear Eigenvalue Problems ★ Bifurcation and nonlinear eigenvalue problems. (81c:35001)

Villettausse ★ Bifurcation and nonlinear eigenvalue problems. (81c:35001)

58E10 Applications to the theory of geodesics (problems in one independent variable)

Ballmann, Werner Doppelpunktfreie geschlossene Geodätische auf kompakten Flächen. 81g:58008

Bangerter, Victor Closed geodesics on complete surfaces. 81k:58017

Solís-Morales, J. On the continuation of the $-\text{grad} E$ flow of $H^1(S^1, M)$. 81k:58028

secondary classifications:

Ballmann, Werner ★ Einige neue Resultate über Mannigfaltigkeiten nicht positiver Krümmung. (German) [Some new results on manifolds of nonpositive curvature] (81d:53027)

Eichenburg, Jost-Hinrich (with O'Sullivan, John J.) Jacobi tensors and Ricci curvature. (81k:53037)

Kac, Mark Semiclassical quantum mechanics and Morse's theory. (81c:81018)

Klingenberg, W. Stable and unstable periodic motions. (81h:58049)

O'Sullivan, John J. See Eichenburg, Jost-Hinrich, (81k:53037)

Stone, David A. The calculus of variations applied to combinatorics. (81c:53046)

Takahashi, Ryō A note on the cut loci and the first conjugate loci of Riemannian manifolds. (81f:57038)

58E11 Critical metrics

secondary classifications:

Gauduchon, Paul Variation des courbures scalaires en géométrie hermitienne. (English summary) (81f:53052)

58E12 Applications to minimal surfaces (problems in two independent variables)

Rassias, Themistocles M. Global analysis. Morse theory on Hilbert manifolds and the Plateau's problem. (Greek summary) 81d:58027

On Plateau's problem and a generalization of the Riemann mapping theorem.

(Greek summary) 81d:58028

Schoen, Richard (with Yau, Shing Tung) Existence of incompressible minimal surfaces and the topology of three-dimensional manifolds with nonnegative scalar curvature. 81k:58029

Toni, Friedrich (with Tromba, Anthony J.) On the structure of the set of curves bounding minimal surfaces of prescribed degeneracy. 81h:58028

Tromba, Anthony J. See Toni, Friedrich, 81h:58028

Yau, Shing Tung See Schoen, Richard, 81k:58029

secondary classifications:

Almgren, Frederick J., Jr. (with Simon, Leon) Existence of embedded solutions of Plateau's problem. (81d:49025)

Bischoff, David Invariant solutions to the oriented Plateau problem of maximal codimension. (81k:49032)

do Carmo, Manfredo P. Minimal surfaces: stability and finiteness. (81h:53037)

Dasgupta, Thil Real minimal currents in compact Lie groups. (Russian) (81a:53051)

Fischer-Colbrie, Doris (with Schoen, Richard) The structure of complete stable minimal surfaces in 3-manifolds of nonnegative scalar curvature. (81i:53044)

Fomenko, A. T. Universal lower bound of the growth rate of globally minimal solutions. (Russian) (81h:49027)

Gulliver, Robert Representation of surfaces near a branched minimal surface. (81i:49030)

Harvey, Reese (with Lawson, H. Blaine, Jr.) Geometries associated to the group SU_n and varieties of minimal submanifolds arising from the Cayley arithmetic. (81h:49028)

- Heinz, Erhard Über eine Verallgemeinerung des Plateauschen Problems. (English summary) (81i:53006)
- Lawson, H. Blaine, Jr. See Harvey, Reese, (81h:49028)
- Mori, Hiroshi Remarks on the stability of a minimal surface in S^n . (81m:53008)
- Ruchert, Hartmut Ein Eindeutigkeitsatz für Flächen konstanter mittlerer Krümmung. (81a:53006)
- Schoen, Richard See Fischer-Colbrie, Doris, (81i:53044)
- Simon, Leon See Almgren, Frederick J., Jr., (81d:49025)
- White, Brian The structure of minimizing hypersurfaces mod 4. (81b:49018)

58E15 Application to extremal problems in several variables

- Jongen, Hubertus Th. (with Twilt, Frank) On decomposition and structural stability in nonconvex optimization. 81c:58032
- Twilt, Frank See Jongen, Hubertus Th., 81c:58032

secondary classifications:

- Kamber, Franz W. (with Tondeur, Philippe) Feuilletages harmoniques. (English summary) (81i:58038)
- Martins, Roberto Vieira Sur la classification des orbites périodiques instables d'après Poincaré. (English summary) (81e:70012)
- de Pasquale, F. (with Tombesi, P.) The decay of an unstable equilibrium state near a "critical point". (81i:82028)
- Tombesi, P. See de Pasquale, F., (81i:82028)
- Tondeur, Philippe See Kamber, Franz W., (81i:58038)

58E17 Pareto optimality, etc., applications to economics

- Marzullo, Angelo (with Pascoletti, A.; Serafini, P.) Genericity and singularities in vector optimization. 81j:58034
- Pascoletti, A. See Marzullo, Angelo; et al., 81j:58034
- Serafini, P. See Marzullo, Angelo; et al., 81j:58034

secondary classifications:

- Balasko, Yves A geometric approach to equilibrium analysis. (81c:90022)
- Dierker, Egbert (with Dierker, Hildegard; Trockel, Walter) Continuous mean demand functions derived from nonconvex preferences. (81f:90015)
- Dierker, Hildegard See Dierker, Egbert; et al., (81f:90015)
- Dixit, Avinash (with Seade, Jesus) Utilitarian versus egalitarian redistributions. (81f:90016)
- van Geldrop, J. H. A note on local Pareto optima. (81h:90031)
- Seade, Jesus See Dixit, Avinash, (81f:90016)
- Sondermann, Dieter Uniqueness of mean maximizers and continuity of aggregate demand. (81f:90028)
- Trockel, Walter See Dierker, Egbert; et al., (81f:90015)
- Yun, Kwan Koo Quasistability in a system of generalized differential equations and its economic applications. (81k:90024)

58E20 Harmonic maps

- Bleeker, David D. Critical mappings of Riemannian manifolds. 81g:58009
- Cheng, Shiu Yuen Liouville theorem for harmonic maps. 81i:58021
- Eells, James Examples of harmonic and holomorphic maps. 81j:58035
- (with Lemaire, L.) On the construction of harmonic and holomorphic maps between surfaces. 81k:58030
- Futaki, Akito On the uniqueness of the Dirichlet problem for harmonic maps. 81f:58017
- Nonexistence of minimizing harmonic maps from 2-spheres. 81j:58036
- Har'El, Zvi On distance-decreasing collineations. 81j:58037
- Hoffman, David Remarks on a geometric constant of Yau. 81a:58021
- Ishihara, Tōru Harmonic sections of tangent bundles. 81b:58015
- Jost, Jürgen Eine geometrische Bemerkung zu Sätzen über harmonische Abbildungen, die ein Dirichletproblem lösen. (English summary) 81m:58027
- Kamber, Franz W. (with Tondeur, Philippe) Feuilletages harmoniques. (English summary) 81j:58038
- Kolno, Norihito Variation of harmonic mapping caused by a deformation of Riemannian metric. 81k:58016
- Lemaire, L. See Eells, James, 81k:58030
- L'vovskii, M. N. On the theory of harmonic mappings with bounded dilatation. (Russian) 81a:58022
- Milnor, Tilla Klotz Harmonically immersed surfaces. 81j:58039
- Nishikawa, Seiki On the Neumann problem for the nonlinear parabolic equation of Eells-Sampson and harmonic mappings. 81k:58031
- Petridis, Nicholas Distance and volume decreasing theorems for a family of harmonic mappings of Riemannian manifolds. 81j:58040
- Schoen, Richard (with Yau, Shing Tung) Compact group actions and the topology of manifolds with nonpositive curvature. 81a:53044
- Siu, Yum Tong Some remarks on the complex-analyticity of harmonic maps. 81b:58017
- (with Yau, Shing Tung) Compact Kähler manifolds of positive bisectional curvature. 81k:58029
- Švec, Alois Two applications of an integral formula. (Czech and Russian summaries) 81d:58029
- Szulkin, Andrzej An example concerning the topological character of the zero-set of a harmonic function. 81c:58033
- Toledo, Domingo Harmonic maps from surfaces to certain Kaehler manifolds. 81d:58030
- Tondeur, Philippe See Kamber, Franz W., 81j:58038
- Tóth, Gábor Extension of a theorem of A. Lichnerowicz. 81h:58030
- Wood, John C. Holomorphicity of certain harmonic maps from a surface to complex projective n -space. 81c:58034

- Xin, Y. L. Some results on stable harmonic maps. 81j:58041
- Yau, Shing Tung See Schoen, Richard, 81a:53044 and Siu, Yum Tong, 81b:58029

secondary classifications:

- Acton, Alfred Classical solutions of $SU(2)$ Yang-Mills theories. (81b:81014)
- Atiyah, Michael Geometrical aspects of gauge theories. (81i:81066)
- Bollini, C. G. (with Giambiagi, J. J.; Tionno, J.) Hidden singularities in nonabelian gauge fields. (Italian and Russian summaries) (81d:81070)
- Bourguignon, Jean Pierre Groupe de jauge élargi et connexions stables. (81m:53038)
- Brihaye, Y. (with Nuyts, J.) Invariance properties of Yang equations and applications. (81d:81047)
- Chen, Zhi Hua (with Cheng, Shiu Yuen; Lu, Qi Keng) On the Schwarz lemma for complete Kähler manifolds. (81f:53050)
- Cheng, Shiu Yuen See Chen, Zhi Hua; et al., (81f:53050)
- Chodos, Alan (with Moncrief, Vincent) Geometrical gauge conditions in Yang-Mills theory: some nonexistence results. (81d:81060)
- Daniel, M. Some uses of the holonomy group. (81d:53029)
- (with Viallet, C.-M.) The geometrical setting of gauge theories of the Yang-Mills type. (81b:81015)
- Din, A. M. (with Zakrzewski, W. J.) Properties of general classical CP^{n-1} solutions. (81i:81068)
- Forger, M. Gauge theories, instantons and algebraic geometry. (81i:81056)
- Ghika, G. (with Vîjinescu, M.) Constraints on a generally covariant four-dimensional sigma model. (81c:81096)
- (with Vîjinescu, M.) Gribov vacuum copies in terms of harmonic maps. (81d:81051)
- Giambiagi, J. J. See Bollini, C. G.; et al., (81d:81070)
- Golo, V. L. (with Putko, B. A.) Reduction of two-dimensional G -invariant σ -models. (81h:81068)
- Granlund, Seppo Harnack's inequality in the borderline case. (81m:35041)
- Greene, Robert E. (with Wu, Hung Hsi) ★Function theory on manifolds which possess a pole. (81a:53002)
- Hildebrandt, Stefan (with Widman, Kjell-Ove) Sätze vom Liouvilleschen Typ für quasilineare elliptische Gleichungen und Systeme. (81f:35036)
- Ichida, Ryosuke Dirichlet problem for minimal surface equations in a Riemannian manifold. I. (81a:53006)
- Jack, I. Multi-instanton determinants for tensor product gauge fields. (81i:81073)
- Jackiw, R. Bifurcation and stability in Yang-Mills theory with sources. (81k:81069)
- Kalka, M. Deformation of submanifolds of strongly negatively curved manifolds. (81k:32021)
- Kenmotsu, Katsuei The Weierstrass formula for surfaces of prescribed mean curvature. (81c:53005a)
- Weierstrass formula for surfaces of prescribed mean curvature. (81c:53005b)
- Lu, Qi Keng See Chen, Shiu Yuen; et al., (81f:53050)
- Martellini, Maurizio See Reina, C.; et al., (81f:81065)
- Milnor, Tilla Klotz Mapping surfaces harmonically into E^n . (81a:53033)
- Moncrief, Vincent See Chodos, Alan, (81d:81060)
- Nuyts, J. See Brihaye, Y., (81d:81047)
- Omero, C. (with Percacci, R.) Generalized nonlinear σ -models in curved space and spontaneous compactification. (81e:81071)
- Patterson, E. M. Critical metrics and harmonic metrics. (81a:53024)
- Percacci, R. See Omero, C., (81e:81071)
- Putko, B. A. See Golo, V. L., (81h:81068)
- Ramsley, J. H. Self-dual Yang-Mills fields. (81g:53054)
- Reina, C. (with Martellini, Maurizio; Sodano, P.) A first order system of differential equations for covariant σ -models. (81f:81065)
- Sakane, Yumuke (with Takeuchi, Masaru) Geometry of Yang-Mills fields—introduction to lectures by Prof. Bourguignon. (Japanese) (81k:53032)
- Schechter, Martin (with Weder, Ricardo) Rigorous results on the existence of dyon solutions. (81g:81058)
- Schoen, Richard (with Yau, Shing Tung) Positivity of the total mass of a general space-time. (81c:58024)
- (with Yau, Shing Tung) Compact group actions and the topology of manifolds with nonpositive curvature. (81a:53044)
- Siu, Yum Tong The complex-analyticity of harmonic maps and the strong rigidity of compact Kähler manifolds. (81j:53061)
- Curvature characterization of hyperquadrics. (81k:53060)
- Sodano, P. See Reina, C.; et al., (81f:81065)
- Spazzini, G. Instanton classical solution of a conformally invariant field theory. (Italian and Russian summaries) (81f:81045)
- Takeuchi, Masaru See Sakane, Yumuke, (81k:53032)
- Tionno, J. See Bollini, C. G.; et al., (81d:81070)
- Viallet, C.-M. See Daniel, M., (81d:81015)
- Vîjinescu, M. See Ghika, G., (81d:81051) and Ghika, G., (81c:81096)
- Weder, Ricardo See Schechter, Martin, (81g:81058)
- Widman, Kjell-Ove See Hildebrandt, Stefan, (81f:35036)
- Willmore, Tom J. Mean-value theorems in Riemannian geometry. (81d:53033)
- Wu, Hung Hsi See Greene, Robert E., (81a:53002)
- Yau, Shing Tung See Schoen, Richard, (81a:53044) and Schoen, Richard, (81c:58024)
- Zakrzewski, W. J. Superconformal invariant nonlinear sigma model in the four-dimensional space-time. (81d:81113)
- Zakrzewski, W. J. See Din, A. M., (81i:81068)

58E25 Applications to control theory (optimal and nonoptimal)

secondary classifications:

- Sussmann, Héctor J. Single-input observability of continuous-time systems. (81f:58025)

58E30 Variational principles

secondary classifications:

- Aldaya, V. (with de Azcárraga, José A.) Higher-order Hamiltonian formalism in field theory. (81m:49047)
 de Azcárraga, José A. See Aldaya, V., (81m:49047)
 Belg, R. Arnol-Witt-Der-Misner energy and g_{00} . (81h:83014)
 Capriz, G. Bodies with microstructure. I. (Italian summary) (81k:73006)
 Kikuchi, Noboru Beam bending problems on a Pasternak foundation using reciprocal variational inequalities. (81h:73052)
 Rougée, P. Formulation lagrangienne intrinsèque en mécanique des milieux continus. (English summary) (81j:73005)
 Smolencov, N. K. The Maupertuis principle. (Russian) (81e:58018)

58E35 Variational inequalities (global problems)

58E99 None of the above, but in this section

- Bongers, A. Ljusternik-Schnirelmann-Theorie auf unbeschränkten Mannigfaltigkeiten. (81e:58024)

secondary classifications:

- Borchers, H. J. (with Garber, W. D.) Local theory of solutions for the $O(2k+1)$ σ -model. (81e:81066)
 Garber, W. D. See Borchers, H. J., (81e:81066)

58Fxx Ordinary differential equations on manifolds; dynamical systems [For abstract and topological dynamics, see also 28D10, 34C35, 34C40, 54H20.]

- Abraham, Ralph (with Marsden, Jerrold E.) ★Foundations of mechanics. 81e:58025
 (Cushman, Richard) See Abraham, Ralph; et al., 81e:58025
 Guckenheimer, John A brief introduction to dynamical systems. 81i:58022
 (Jacobs, Konrad) See Selecta Mathematica, 81j:58042
 Marsden, Jerrold E. See Abraham, Ralph, 81e:58025
 Newhouse, Sheldon E. Lectures on dynamical systems. 81m:58028
 (Ratiu, Tudor) See Abraham, Ralph; et al., 81e:58025
 Sibirskii, K. S. Dynamical systems. (Russian) 81m:58029
 Selecta Mathematica ★Selecta Mathematica. V. (German) 81j:58042

secondary classifications:

- (Einstein, Albert) See General relativity, (81i:83002)
 (Hawking, S. W.) See General relativity, (81i:83002)
 (Holmes, Philip J.) See New approaches to nonlinear problems in dynamics, (81h:00006)
 (Israel, W.) See General relativity, (81i:83002)
 Walker, John Andrew ★Dynamical systems and evolution equations. (81f:34061)
 Anniversary:
 Birth of Albert Einstein ★General relativity. (81i:83002)

Conference:

- New Approaches to Nonlinear Problems in Dynamics ★New approaches to nonlinear problems in dynamics. (81h:00006)
 Dynamics ★New approaches to nonlinear problems in dynamics. (81h:00006)
 General relativity ★General relativity. (81i:83002)
 New approaches to nonlinear problems in dynamics ★New approaches to nonlinear problems in dynamics. (81h:00006)
 Pacific Grove, Calif. ★New approaches to nonlinear problems in dynamics. (81h:00006)

58F05 Hamiltonian and Lagrangian systems; symplectic geometry [See also 70Hxx.]

- Andressal, Gabriele On the generalized groups of functions with a singular matrix. (Italian. English summary) 81k:58032
 Banyaga, Augustin On fixed points of symplectic maps. 81a:58023
 Benanti, Sergio (with Francaviglia, Mauro) The theory of separability of the Hamilton-Jacobi equation and its applications to general relativity. 81m:58030
 (with Tulczyjew, Włodzimierz M.) Geometry of static mechanical systems with constraints. 81m:58031
 Bujno, A. D. Noncanonical invariants of Hamiltonian systems. (Russian. English summary) 81a:58024
 Broecke, R. Simple nonintegrable systems with two degrees of freedom. 81f:58018
 Bryant, John La variété de collision triple comme variété invariante d'un système de contact. (English summary) 81h:58033
 Churchill, Richard C. (with Rod, David L.) Pathology in dynamical systems. III. Analytic Hamiltonians. 81k:58034
 Contopoulos, G. Instabilities in systems of three degrees of freedom. 81f:58019
 Cushman, Richard (with Kelley, Al) Strongly stable real infinitesimally symplectic mappings. 81d:58031
 Devaney, Robert L. Homoclinic orbits to hyperbolic equilibria. 81i:58023
 Dorfman, I. Ja. See Gelfand, I. M., 81a:58025 and Gelfand, I. M., 81e:58035
 Ekeland, Ivar (with Lasry, Jean-Michel) On the number of periodic trajectories for a Hamiltonian flow on a convex energy surface. 81m:58032
 Fomenko, A. T. See Mikčenko, A. S., 81e:58026 and Mikčenko, A. S., 81g:58014
 Francaviglia, Mauro See Benanti, Sergio, 81m:58030
 Gelfand, I. M. (with Dorfman, I. Ja.) Hamiltonian operators and related algebraic structures. (Russian. English summary) 81e:58025
 (with Dorfman, I. Ja.) Hamiltonian operators and algebraic structures associated

with them. (Russian) 81e:58035

- González Gascón, F. (with Rodríguez-Camino, E.) Symmetries, first integrals, and differential forms of dynamical systems. 81g:58010
 Gotay, Mark J. (with Nester, James M.) Generalized constraint algorithm and special presymplectic manifolds. 81i:58024
 (with Nester, James M.) Presymplectic Lagrangian systems. II. The second-order equation problem. 81m:58033
 Guillemin, Victor (with Sternberg, Shlomo) The moment map and collective motion. 81g:58011
 Holmes, Philip J. Periodic, nonperiodic and irregular motions in a Hamiltonian system. 81m:58034
 Iljueckin, N. V. On the manifold of completely integrable left-invariant metrics on a semisimple Lie group. (Russian. French summary) 81a:58026
 Kelley, Al See Cushman, Richard, 81d:58031
 Khélil, Ibrahim Remarques sur l'algèbre de Lie des fonctions sur \mathbb{R}^{2n} muni du crochet de Poisson. (English summary) 81f:58020
 Kolesnikov, N. N. See Kozlov, V. V., 81e:58037
 Kozlov, V. V. Topological obstacles to the integrability of natural mechanical systems. (Russian) 81e:58036
 (with Kolesnikov, N. N.) Integrability of Hamiltonian systems. (Russian. English summary) 81e:58037
 Krasil'shik, I. S. Hamiltonian cohomology of canonical algebras. (Russian) 81j:58043
 Kuznet, Sakayuki On the relationship between conservation laws and invariance groups of nonlinear field equations in Hamilton's canonical form. 81e:58038
 Kupersmidt, Boris (with Manin, Ju. I.) Long wave equations with a free surface. I. Conservation laws and solutions. (Russian) 81a:58027
 (with Manin, Ju. I.) Long wave equations with a free surface. II. The Hamiltonian structure and the higher equations. (Russian) 81a:58028
 Lasry, Jean-Michel See Ekeland, Ivar, 81m:58032
 Lebedev, D. R. (with Manin, Ju. I.) The Gelfand-Dikii Hamiltonian operator and the coadjoint representation of the Volterra group. (Russian) 81a:58029
 Lichnerowicz, André Sur la géométrie des variétés de contact et des variétés symplectiques exactes. (English summary) 81g:58012
 Manin, Ju. I. See Kupersmidt, Boris, 81a:58027; Kupersmidt, Boris, 81a:58028 and Lebedev, D. R., 81a:58029
 Markus, Lawrence (with Meyer, Kenneth R.) Periodic orbits and solenoids in generic Hamiltonian dynamical systems. 81g:58013
 Marle, C. M. Action de groupes et séparation de variables pour les systèmes hamiltoniens. (English summary) 81h:58031
 Meyer, Kenneth R. See Markus, Lawrence, 81g:58013
 Mimura, Fumitake See Nôno, Takayuki, 81h:58018
 Mikčenko, A. S. (with Fomenko, A. T.) Symplectic Lie group actions. 81e:58026
 (with Fomenko, A. T.) Integrability of Euler's equations on semisimple Lie algebras. (Russian) 81g:58014
 Morvan, Jean-Marie Sur les déformations des applications symplectiques. (English summary) 81i:58025
 Mukunda, N. Phase space methods and the Hamilton-Jacobi form of dynamics. 81f:58021
 Generators of symmetry transformations for constrained Hamiltonian systems. 81e:58039
 Nester, James M. See Gotay, Mark J., 81i:58024 and Gotay, Mark J., 81m:58033
 Nishino, Yoshio On differential operators associated with quadratic first integrals of simple dynamical systems. 81g:58015
 Nôno, Takayuki (with Mimura, Fumitake) Dynamical symmetries. V. 81h:58018
 Pham Mau Quan Géométrie du problème de Kepler: courbure et géodésiques. (English summary) 81j:58044
 Géométrie du problème de Kepler: orbites et variétés des orbites. (English summary) 81j:58045
 Pidkuiko, S. I. (with Stepin, A. M.) Polynomial integrals of Hamiltonian systems. (Russian) 81f:58022
 Pervovskii, Svyatoslav N. Structures hamiltoniennes en présence de contraintes. (English summary) 81e:58027
 Rabinowitz, Paul H. Periodic solutions of a Hamiltonian system on a prescribed energy surface. 81a:58030a
 Ratiu, Tudor The motion of the free n -dimensional rigid body. 81h:58032
 Rod, David L. See Churchill, Richard C., 81k:58034
 Rodríguez-Camino, E. See González Gascón, F., 81g:58010
 Sanders, Jan A. (with Verhulst, Ferdinand) Approximations of higher order resonances with an application to Contopoulos' model problem. 81f:58023
 Slom, Carlos Invariant curves near parabolic points and regions of stability. 81m:58035
 Stepin, A. M. See Pidkuiko, S. I., 81f:58022
 Sternberg, Shlomo See Guillemin, Victor, 81g:58011
 Tulczyjew, Włodzimierz M. See Benanti, Sergio, 81m:58031
 Verhulst, Ferdinand See Sanders, Jan A., 81f:58023
 Vey, Jacques Algèbres commutatives de champs de vecteurs isochores. (English summary) 81a:58031
 Vinogradov, A. M. Hamiltonian structures in field theory. (Russian) 81h:58019
 Weinstein, Alan On the hypotheses of Rabinowitz' periodic orbit theorems. 81a:58030b

secondary classifications:

- van der Aa, Els (with Sanders, Jan A.) The 1:2:1-resonance, its periodic orbits and integrals. (81h:70016)
 Akyoliz, Yilmaz On the dynamical symmetries of the Kepler problem. (81j:81019)
 Anderson, Stig L. Liftings and Ext(X) for pseudodifferential operators. (French summary) (81f:46067)
 Arsen'ev, A. A. Uniqueness of Kubo-Martin-Schwinger states for classical dynamical systems with infinite-dimensional phase space. (Russian. English summary) (81i:82002)
 Aubla, Jean-Pierre (with Ekeland, Ivar) Second-order evolution equations associated with convex Hamiltonians. (81j:58026)

- Bahar, L. Y. See Sartet, Willy, (81i:70010)
- Benenti, Sergio Structures de séparabilité sur une variété riemannienne de signature quelconque. (English summary) (81i:53034)
- Bracomier, Jean Sur les crochets généralisés et quelques unes de leurs applications. (81i:17009)
- Bryant, John Sur une réduction du problème des N -corps mettant en évidence une structure de contact. (English summary) (81d:70009)
- Cañati, Giulio (with Valz Gris, F.; Guarnieri, I.) On the connection between quantization of nonintegrable systems and statistical theory of spectra. (81m:81029) (with Čirikov, B. V.; Ford, Joseph) Marginal local instability of quasiperiodic motion. (81i:70012)
- Čirikov, B. V. See Cañati, Giulio; et al., (81i:70012)
- Clarke, Frank H. The Erdmann condition and Hamiltonian inclusions in optimal control and the calculus of variations. (81f:49002) (with Ekeland, Ivar) Hamiltonian trajectories having prescribed minimal period. (81i:70017)
- Devaney, Robert L. Structural stability of homothetic solutions of the collinear n -body problem. (81j:70008)
- Dimaiško, Ju. A. See Granovskii, Ju. I., (81i:81011)
- Dominici, D. (with Gomis, J.) Poincaré-Cartan integral invariant and canonical transformations for singular Lagrangians. (81i:70013)
- Dragt, Alex J. (with Finn, John M.) Normal form for mirror machine Hamiltonians. (81j:70017)
- Easton, Robert W. Perturbed twist maps, homoclinic points and ergodic zones. (81i:58052)
- Ekeland, Ivar Periodic solutions of Hamiltonian equations and a theorem of P. Rabinowitz. (81j:49014) See also Clarke, Frank H., (81i:70017) and Aubin, Jean-Pierre, (81j:58026)
- Eliezer, C. J. The symmetries and first integrals of some differential equations of dynamics. (81d:70013)
- Escande, D. F. Primary resonances do not overlap. (81i:70014)
- Eckbach, D. Étude de la collision triple. (English summary) (81i:70013)
- de Felice, Fernando Angular momentum and separation constant in the Kerr metric. (81d:83028)
- Finn, John M. See Dragt, Alex J., (81j:70017)
- Ford, Joseph See Cañati, Giulio; et al., (81i:70012)
- Fronteau, Jean See Grmela, Miroslav; et al., (81i:82027)
- Fučík, V. I. (with Segeda, Ju. N.; Red'kenko, G. A.) Invariant systems of equations in generalized mechanics. (Russian) (81i:70006)
- Gallinilla, I. A. Inverse problem in the dynamics of a rigid body with one attached point. (81j:70007)
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- Phyllis, R. (with Curtis, W. D.) Feynman's variational method applied to the randomly forced Duffing equation. (81d:34009)
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- Rudnick, Joseph See Haberman, B. A., (81e:82007)
- Ruelle, David Turbulent behavior in differentiable dynamical systems. (81j:58064)
- Saito, B. I. (with Mihov, V. M.) Dynamics of a synchronization system with discontinuous characteristics. (Russian. English summary) (81m:93043)
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- Smith, R. H. (with Mead, R.) The dynamics of discrete-time stochastic models of population growth. (81k:92051)
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- White, R. B. See Rechester, A. B.; et al., (81f:76055)
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- Argenti, José Sur les points singuliers de certains champs de gradients polynomiaux. (Italian summary) (81e:58040)
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- Arnold, A. See Couillet, P.; et al., (81m:58057)
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- Blanchard, Paul R. Invariants of the NPT isotopy classes of Morse-Smale diffeomorphisms of surfaces. (81e:58042)
- Bogdanov, R. I. Singularities of vector fields on the plane with pointed direction. (81f:58028)
- Chenciner, A. (with Iooss, G.) Bifurcations de tores invariants. (81e:58049)
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- Chow, Shui Nee (with Hale, Jack K.; Mallet-Paret, John) An example of bifurcation to homoclinic orbits. (81m:58056)
- Couillet, P. (with Tresser, C.; Arnéodo, A.) Transition to stochasticity for a class of forced oscillators. (81m:58057)
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- Gaudet, Alain See Argenti, José, (81a:58038)
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- Guckenheimer, John Symbolic dynamics and relaxation oscillations. (81j:58060)
- Gürel, Ökan Necessary and sufficient conditions for cooperative peeling of multiple generating singular points. (81e:58050)
- Haken, H. Synergetics and bifurcation theory. (81j:58061)
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- Holmes, Philip J. (with Marsden, Jerrold E.) Bifurcations of dynamical systems and nonlinear oscillations in engineering systems. (81j:58062)
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- Kleiber, Hansjörg Corrigenda: "Hopf bifurcation at multiple eigenvalues" [Arch. Rational Mech. Anal. 69 (1979), no. 1, 53-83; MR 80d:58045]. (81j:58030)
- Mallet-Paret, John See Chow, Shui Nee; et al., (81m:58056)
- Mangal, Marc Small fluctuations in systems with multiple limit cycles. (81e:58043)
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- Medved', Milan Generic bifurcations of second order ordinary differential equations near closed orbits. (81h:58051)
- de Mottoni, Piero Über eine nichtlineare Randwertaufgabe. (81d:58042)
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- Bajaj, A. K. (with Sethna, P. R.; Lundgren, T. S.) Hopf bifurcation phenomena in tubes carrying a fluid. (81f:76040)
- Balazs, N. L. See Berry, M. V.; et al., (81h:81034)
- Barugola, Alexandre Singularités non élémentaires de systèmes dynamiques plans dans un cas non analytique. (81f:34032)
- Bernfeld, S. R. (with Salvadori, L.) Generalized Hopf bifurcation and h -asymptotic stability. (81k:34037)
- Berry, M. V. (with Balazs, N. L.; Tabor, M.; Voros, A.) Quantum maps. (81h:81034)
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- Camacho, César On the local structure of conformal mappings and holomorphic vector fields in \mathbb{C}^2 . (81d:58016)
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- De Oliveira, José Carlos F. See Hale, Jack K., (81h:58026)
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- Eicher, Claus Models of chemical reaction systems with exactly evaluable limit cycle oscillations. (81d:80011)
- Flückert, Dietrich Existence of small periodic solutions of ordinary differential equations in \mathbb{R}^2 . (81g:34049)
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- Gil'derman, Ju. I. On special trajectories of continuous piecewise-affine systems. (Russian) (81j:34049)
- González-Velasco, Enrique A. The use of projective space in the study of polynomial vector fields at infinity. (81h:34035)
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- Hoyle, Stephen L. Hopf bifurcation for ordinary differential equations with a zero eigenvalue. (81h:34033)
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- Iooss, G. ★Bifurcation of maps and applications. (81h:58014)
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- Jackiw, R. (with Rossi, Paolo) Stability and bifurcation in Yang-Mills theory. (81e:81054)
- Jensen, K. F. See Ray, W. Harmon, (81m:80015)
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- May, Robert M. Bifurcations and dynamic complexity in ecological systems. (81f:92031)
- Nunbamm, Roger D. A Hopf global bifurcation theorem for retarded functional differential equations. (81h:34002)
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- Othmer, H. G. Applications of bifurcation theory in the analysis of spatial and temporal pattern formation. (81i:92003)
- Petrova, M. P. See Egorov, I. G., (81c:34033)
- Poincaré, L. V. Bifurcations of a singular point of multidimensional dynamical systems. (Russian) (81g:34063)
- Ray, W. Harmon (with Jensen, K. F.) Bifurcation phenomena in stirred tanks and catalytic reactors. (81m:80015)
- Reyn, J. W. Generation of limit cycles from separatrix polygons in the phase plane. (81m:34033)
- Robb, I. A. Bifurcations of plane with three-dimensional periodic orbits in the elliptic restricted problem. (81m:70016)
- Ross, Paolo See Jackiw, R., (81a:81054)
- Roset, I. G. Stability of some integral manifolds in a three-dimensional dynamical system. (Russian) (81m:58045)
- Ruelle, David Dynamical systems with turbulent behavior. (81e:58032)
- Rybak, Boris Welcome address. (81g:90010)
- Salvadori, L. See Bernfeld, S. R., (81k:34037)
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- Smoller, J. (with Tromba, Anthony J.; Wasserman, A.) Nondegenerate solutions of boundary value problems. (81h:34009)
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- Sverdlow, Ronald Vector fields defined by complex functions. (81c:34041)
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- Turco, Bertrand Sur la réduction formelle, dans les cas non linéarisables, des jets de champs de vecteurs sur \mathbb{R}^n . (English summary) (81d:58018)
- Tumphauser, M. D. Some theorems on separation of variables and the fundamental function in problems of dynamical stability of elastic systems. (Russian) (81k:73031)
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- Weber, Helmut Numerical solution of Hopf bifurcation problems. (81e:65052)
- Zakides, M. K. New u -type families of periodic orbits in the restricted three-body problem. (81g:70012)

58F15 Hyperbolic structures (expanding maps, Anosov systems, etc.)

- Batterson, Steve Constructing Smale diffeomorphisms on compact surfaces. 81a:58040
- Benettin, G. (with Casartelli, M.; Galgani, L.; Giorgilli, A.; Strelcyn, J.-M.) On the reliability of numerical studies of stochasticity. II. Identification of time averages. (Italian and Russian summaries) 81i:58031
- Casartelli, M. See Benettin, G.; et al., 81i:58031
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- Dani, Shrikishna G. On affine automorphisms with a hyperbolic fixed point. 81m:58059
- Daukaer, Alan Axiom A dynamical systems, cycles and stability. 81g:58026
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- Farrell, F. T. (with Jones, L. E.) Anosov diffeomorphisms constructed from $\pi_1 \text{Diff}(S^n)$. 81f:58030
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- Minaian, V. B. The averaging principle and theorem of large deviations for some families of extensions of an Anosov flow. (Russian) 81h:58048
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- Antonevič, A. B. (with Lebedev, A. V.) On extension of operator algebras by unitary operators that generate automorphisms. (Russian. English summary) (81j:58074)
- Bronstein, I. U. (with Černil, V. F.) Linear extensions that satisfy the Perron condition. II. (Russian) (81f:54022)
- Černil, V. F. See Bronstein, I. U., (81f:54022)
- Cohen, R. H. See Lichtenberg, A. J.; et al., (81m:78015)
- Collet, Pierre Renormalization group approach to the hierarchical model. (81k:82015)
- Devaney, Robert L. Homoclinic orbits to hyperbolic equilibria. (81i:58023)
- Franks, John Manifolds of C^* mappings and applications to differentiable dynamical systems. (81a:58018)
- Grossi, Sad, P. R. Centralizers of vector fields. (81c:58053)
- Guillemin, Victor (with Kazhdan, David) On the cohomology of certain dynamical systems. (81j:58067)
- Holmes, Philip J. (with Marsden, Jerrold E.) Dynamical systems and invariant manifolds. (81k:34042)
- Kato, Kazuhisa (with Morimoto, Akihiko) Topological Ω -stability of Axiom A flow with no Ω -expansions. (81k:58044)
- Katok, A. Lyapunov exponents, entropy and periodic orbits for diffeomorphisms. (81i:28022)
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- Kifer, Yuri On the principal eigenvalue in a singular perturbation problem with hyperbolic limit points and circles. (81g:35006)
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- Lichtenberg, A. J. (with Lieberman, M. A.; Cohen, R. H.) Fermi acceleration revisited. (81m:78015)
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- Singular integral manifolds and the appearance of stochasticity in dynamical systems. (Russian) (81j:34043)
- Ratner, Marina The Cartesian square of the horocycle flow is not loosely Bernoulli. (81g:58032)
- Rössler, Otto E. Continuous chaos—four prototype equations. (81h:58042)
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- Tanno, Shikichi Geodesic flows on C_2 -manifolds and Einstein metrics on $S^3 \times S^2$. 81g:58027

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- Dani, Shrikishna G. A simple proof of Borel's density theorem. (81m:22010)
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58F18 Relations with foliations

- Camacho, César On the existence of stable actions of abelian Lie groups. (Portuguese) (See 80c:00010b)
- Klarén, Bernard Classification topologique des n -uples de champs de vecteurs holomorphes commutatifs sur $P_{n+1}(\mathbb{C})$. (English summary) 81i:58033
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 Dombrowski, Peter Jacobi fields, totally geodesic foliations and geodesic differential forms. (81m:57018)
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 Handel, Michael One-dimensional minimal sets and the Seifert conjecture. (81m:58068)
 Kutukova, L. T. Nonlocal existence theorems for the normalized integral. (Russian) (81c:34024)
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 de Oliveira, M. C. Nonsingular structural stable flows on three-dimensional manifolds. (81m:58044)
 Solodov, V. V. Mappings of a circle into foliations. (Russian) (81i:57026)
 Trin Hui Hoang Sur le feuilletage défini par une équation de Pfaff algébrique sur $P_n C$. (81f:58002)
 Tsuchiya, Nobuo Growth and depth of leaves. (81f:57028)
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58F19 Eigenvalue and spectral problems

- Rodrigues, Paulo R. (with Roussarie, Robert) Sur l'existence de séparatrices pour les germes de difféomorphismes du plan. (English summary) 81e:58045
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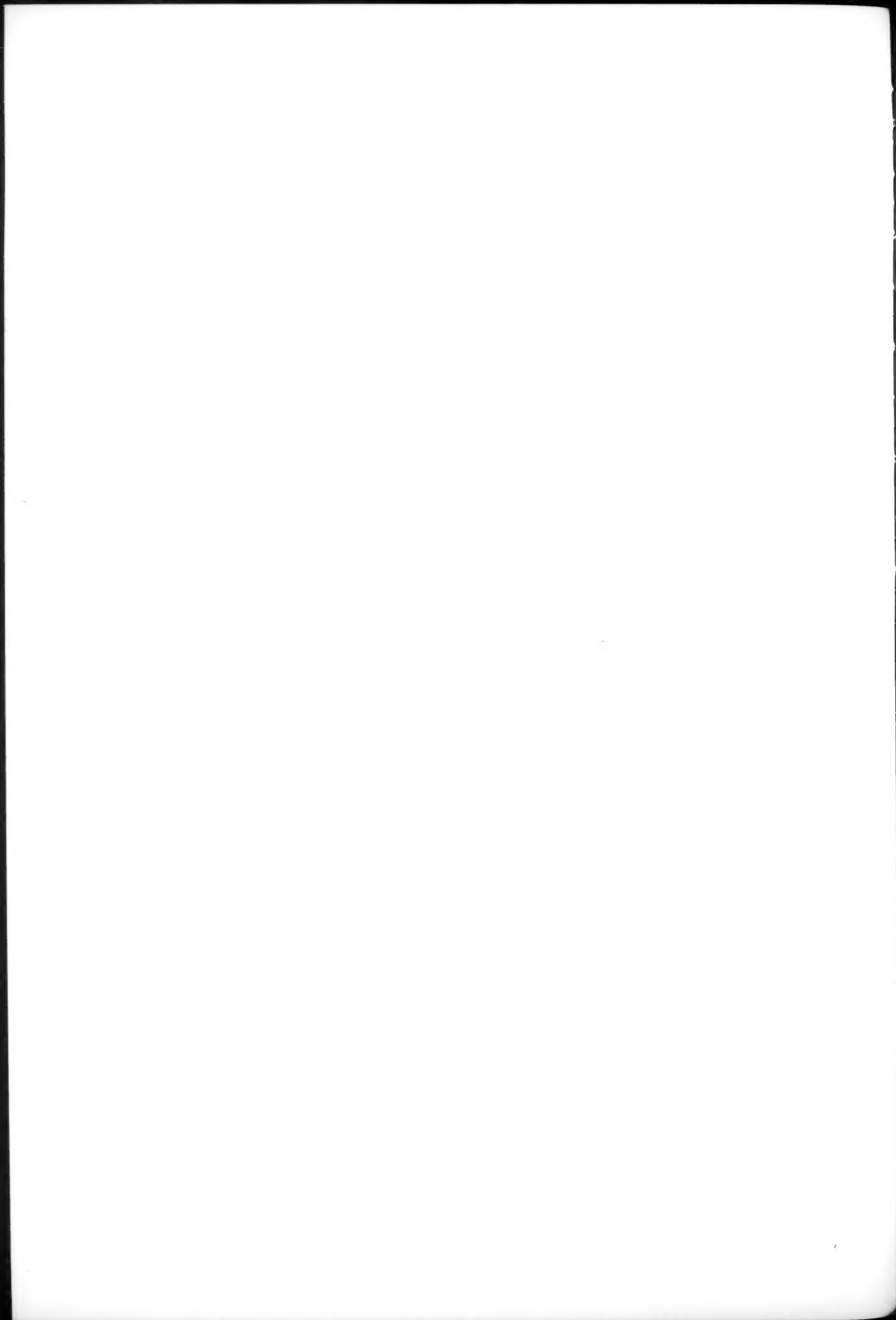
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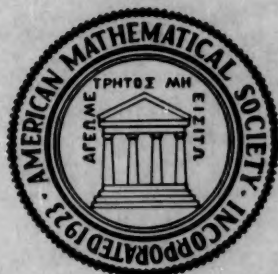
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REVIEWS IN RING THEORY

Compiled and Edited by Lance W. Small

Department of Mathematics, University of California, San Diego

These volumes collect 5,396 reviews from *Mathematical Reviews* of papers in noncommutative ring theory. All reviews of papers in ring theory from Volume 21 (1960) through Volume 58 (1979) appear here. Additionally, the editor has collected those papers from Volume 1 through Volume 20 which are necessary background. Papers on group rings, homological questions, and enveloping algebras with ring theoretic interest are also included.

Each review has an "appearance number" specifying the location of the review by chapter, section and number within the section. By and large, reviews within one section are arranged in "rough" chronological order (i.e., by appearance in *Mathematical Reviews*). The principal exceptions are papers in a series and very closely related papers. If a cited review occurs in these volumes, then its appearance number is listed after the review in which it is cited.

Cross-references are given at the beginning of some sections and chapters to inform the reader of closely related reviews appearing elsewhere. These cross-references may also be useful to the reader as a guide to finding reviews which do not appear where the reader thinks they should.

These volumes are a research tool. There are no other books containing the information herein except *Mathematical Reviews* itself.

The editors' previous work includes over 40 papers in ring theory. He has been a reviewer for *Mathematical Reviews* since 1968.

The work is divided into 31 chapters each subdivided into 3 to 21 sections. Chapter headings are:

1. Primitive, prime and semi-prime rings
2. Theory of radicals
3. Nil, nilpotent and radical rings
4. Simple and semi-simple Artin rings
5. Division rings
6. Matrices over commutative rings and fields and linear algebra (ring theoretic)
7. Classical orders, integral representation theory, arithmetic in algebras
8. Separable algebras, Azumaya algebras and their generalizations
9. Galois theory
10. Hopf algebras—algebraic theory
11. Rings satisfying a polynomial identity
12. Rings with involution
13. Lie and Jordan structures on rings
14. Module theory (general)
15. Projective modules, flat modules and their generalizations
16. Injective modules, self-injective rings and generalizations
17. Von Neumann regular rings and their generalizations
18. Artin rings
19. Quasi-Frobenius (QF) rings and their generalizations
20. Perfect, semi-perfect rings and modules and their generalizations
21. Integral domains
22. Goldie's theorem, rings of quotients
23. Noetherian rings
24. Group rings
25. Homological and categorical methods in ring theory
26. Torsion theories
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REVIEWS IN GRAPH THEORY

Compiled and Edited by William G. Brown
MCGILL UNIVERSITY
DEPARTMENT OF MATHEMATICS

This publication is a four-volume compendium of about 9,600 reviews in graph theory published by **Mathematical Reviews** in Volumes 1 through 56, i.e. between 1940 and 1978 inclusive. Reviews were selected from the several sections of **Mathematical Reviews** which were the usual repositories of such items; from the subject lists in **Mathematical Reviews** indexes, where available; and through a systematic perusal of about half of all reviews published by **Mathematical Reviews** during the 39 years under consideration. Every review cited in a selected review was also read, and the process iterated until stable.

A classification scheme containing over 500 categories was developed for the purpose. Every review has been assigned one primary classification and, on the average, one secondary classification. Reviews are reprinted in strict chronological order of **Mathematical Review** numbers in their primary subject area, with a brief citation at each secondary location.

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